

## Museum notes.

American Numismatic Society.

New York, American Numismatic Society.

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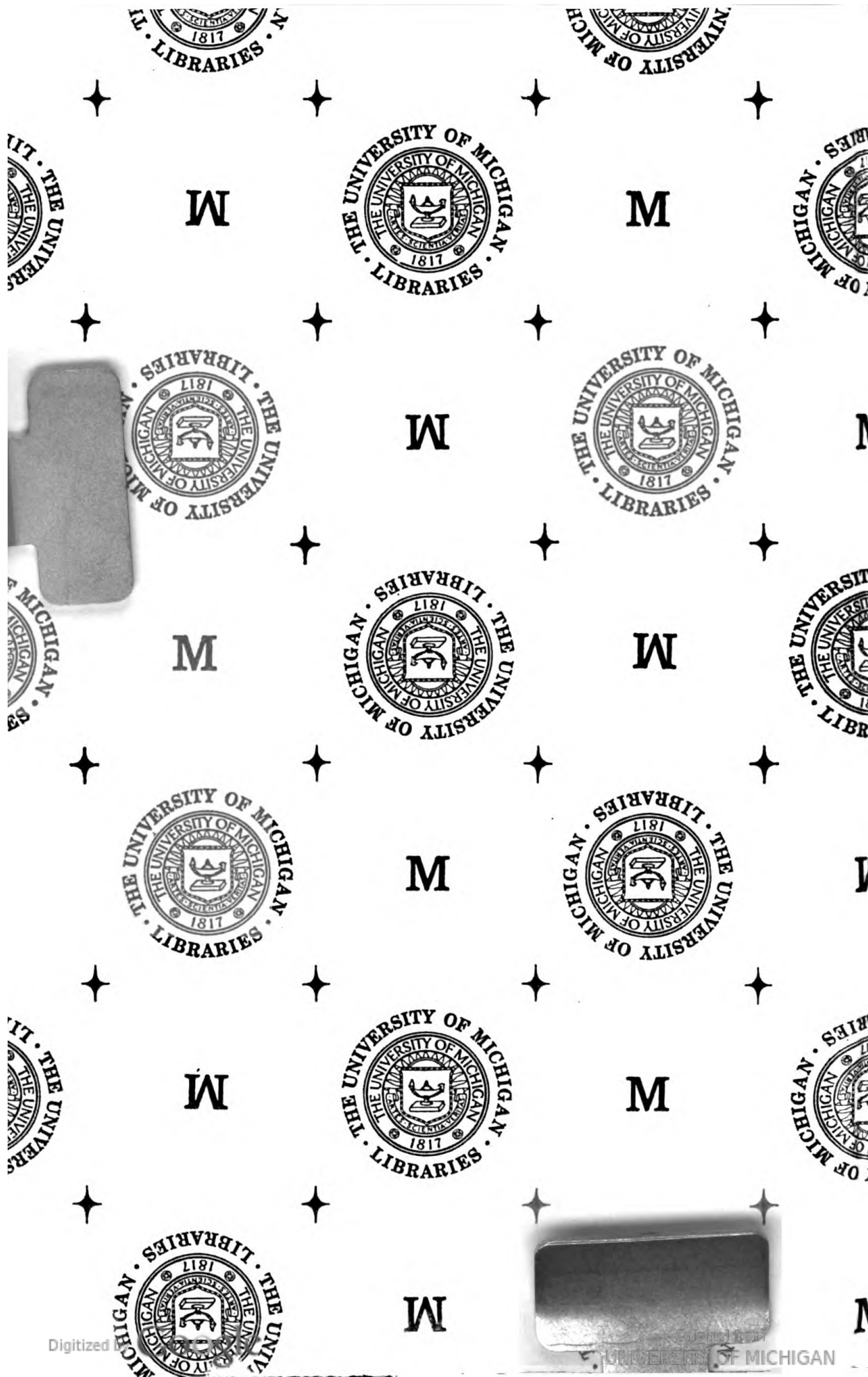
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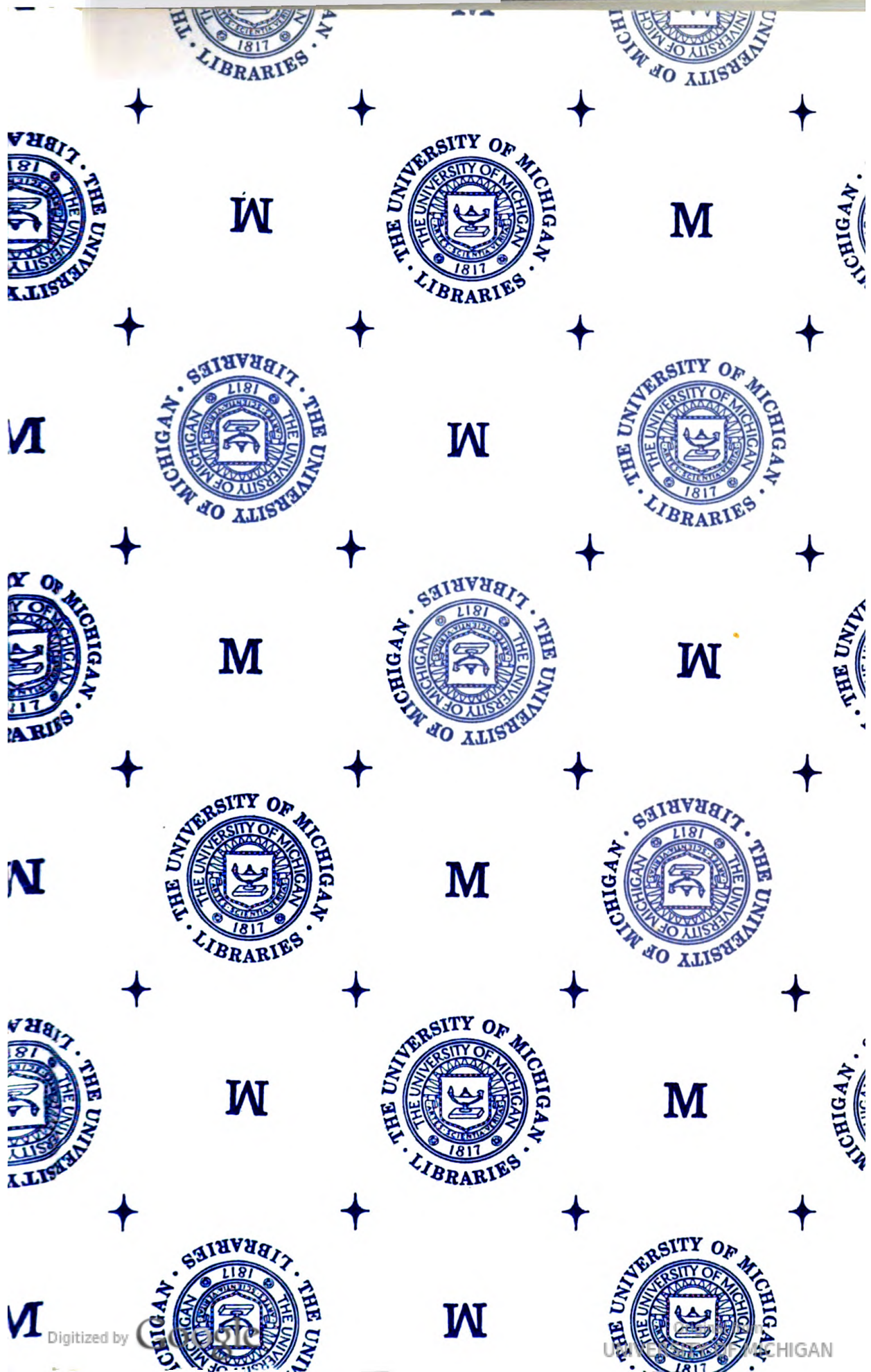
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THE AMERICAN NUMISMATIC SOCIETY

C67  
MUSEUM NOTES

18



THE AMERICAN NUMISMATIC SOCIETY

NEW YORK

1972



# THE AMERICAN NUMISMATIC SOCIETY

*Founded 1858 • Incorporated 1865*

BROADWAY BETWEEN 155TH & 156TH STREETS  
NEW YORK, N. Y., 10032

**PURPOSES:** The Society was founded for the collection and preservation of coins, medals, decorations and paper money and for the investigation of their history and other subjects connected therewith.

**MEMBERSHIP:** Applications for membership are welcomed from all interested in numismatics. Inquiries regarding membership should be addressed to the Secretary of the Society.

**DUES:** The annual dues for an Associate Membership are \$15.00. Issues of the *Notes and Monographs*, *Museum Notes* and *Numismatic Literature* are distributed to all members.

**PUBLICATIONS:** The *Numismatic Notes and Monographs* consist of separately issued publications, each on a single topic, of which usually several appear each year. *The American Numismatic Society Museum Notes* is a publication, irregular in appearance, consisting of brief notes and papers, principally on items in the Society's collections. *Numismatic Literature*, published twice each year, lists current numismatic publications with abstracts of their content. *Numismatic Studies* is a series accommodating works in a larger format.

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9-15  
11-17

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**PRINTED IN GERMANY AT J. J. AUGUSTIN · GLÜCKSTADT**



## CONTENTS

### GREEK

WARREN G. MOON. A Note on a Zachynthian Obol	I
WALTER W. SHERIDAN. A Hoard of Rhodian-Type Drachms	5
FRED S. KLEINER. The Dated Cistophori of Ephesus	17

### ROMAN

THEODORE V. BUTTREY, Jr. A Hoard of Sestertii from Bordeaux and the Problem of Bronze Circulation in the Third Century A.D.	33
JOHN D. MAC ISAAC. The Weight of the Late 4th and Early 5th Century Nummus (Æ 4)	59

### MEDIAEVAL AND MODERN

BOLESŁAW B. SZCZEŚNIAK. The Cyrillic Deniers of Boleslav I of Poland	67
ROBERTO PESANT. The ANS Hoard of Antioch Deniers	73
D. M. METCALF. A Hoard of Billon of Fernando IV of Castile and Leon	87
HENRY GRUNTHAL. A Trinity Medal by Hans Reinhart	109

### ORIENTAL

HENRI AMIN AWAD. Seventh Century Arab Imitations of Alexandrian Dodecanummia	113
GEORGE C. MILES. Coinage of the Ziyārid Dynasty of Ṭabaristān and Gurgān	119
GEORGE C. MILES. Another Kākwayhid Note	139
MICHAEL L. BATES. Notes on Some Ismā'īlī Coins from Yemen	149
SAMUEL LACHMAN. A Hoard of Silver Coins of Barsbāy	163
BENJAMIN SASS. The Silver and Billon Coins Minted at Constantinople Under Sultan Maḥmūd II (1223-1255 H.)	167



## A NOTE ON A ZACHYNTHIAN OBOL

WARREN G. MOON

During the course of my study of the use of conventions in numismatic art as evidenced by the depiction of altars on coins, I had occasion to examine a reproduction of a *BM* obol of Zachynthus in the Peloponnese.<sup>1</sup> The obverse has a head of Apollo, right, laureate. The reverse type was originally described as a tetrastyle temple of Apollo by J. Eckhel<sup>2</sup> and T. E. Mionnet<sup>3</sup> but Percy Gardner, in his important study of the Zachynthian coinage, corrected the identification of the obol reverse to an "altar with conical cover, bound with wreath."<sup>4</sup>

It is necessary, in the light of our present knowledge of Greek religious practices, to define more accurately the reverse type on this coin. Greek altars were not covered except by an occasional flat firepan, and an altar with a "conical cover" cannot be reconstructed from any archaeological evidence. The obol's relation to other coins in Gardner's Series III (394–357 B.C.) with their strong references to Delphic Apollo, the island's patron, may identify the altar on its reverse as sacred to this god. It was essential that offertory vapors rise fresh and unencumbered toward the Olympian sky gods, Apollo included, and covered altars are equally discordant with chthonic ritual.

Instead of a cover the triangular arrangement is a gable shaped barrier or fender, the altar being shown in its short-ended view

<sup>1</sup> *BMC* 28, pl. XIX, 20 (0.57 gm.). This coin type is extremely rare; the only other example known to me was recorded and illustrated by J. Eckhel in *Numi veteres anecdoti ex Museis Casaresaeo Vindobonensi* (Vienna, 1775), p. 130, pl. VIII, 23, from the now dispersed collection of the Marchese Savorgnani. The coin is considered an obol because its weight, .57 gm., is similar to an earlier Zachynthian small silver weighing .54 gm. which has O on the reverse thought to designate denomination.

<sup>2</sup> *Numi veteres anecdoti*, p. 130, pl. VIII, 23. Eckhel provides a line drawing on pl. VIII which clearly depicts a tetrastyle temple. However the interior elements of the design must reflect Eckhel's guess as to the die cutter's intentions. The obverse has been similarly enhanced.

<sup>3</sup> *Médailles antiques, Supplément* IV, p. 196, 18.

<sup>4</sup> *NC* 1885, p. 95, pl. IV, 4.



(Fig. 1). The rectangular altar shaft was often provided with a barrier at each end to reduce disturbance of the consecrated ashes by sudden gusts of wind, and their gable shape no doubt was planned to harmonize with the nearby temple. The short-ended view is an aesthetic consideration, the more perfectly geometric square and triangle being better suited to the circular coin field than the rectangular, longitudinal view of the altar shaft.



FIG. 1

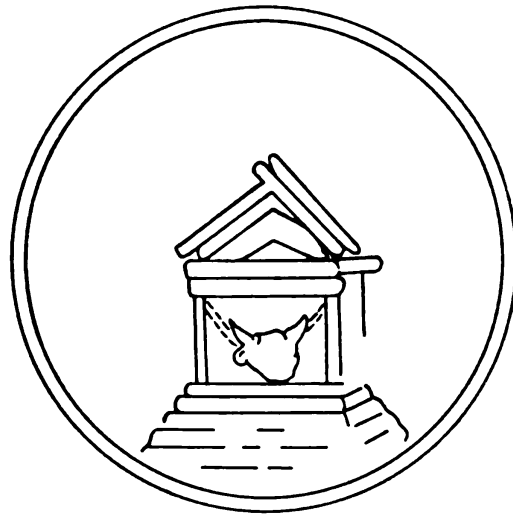


FIG. 2

Gabled barriers are known on altars from the end of the sixth century B.C. with the altar of Apollo at Cape Zoster<sup>5</sup> and the one to Demeter Malaphoros at Selinus, Sicily.<sup>6</sup> This altar type is popular throughout the fifth century, the altar of Hera at Delos<sup>7</sup> a notable example, and in the fourth, one in the theater at Priene and several *aurulae* at Olynthus.<sup>8</sup> As the island of Zachynthus is largely unexcavated the numismatic evidence is the only record for this altar type there.

<sup>5</sup> Constantine Yavis, *Greek Altars* (St. Louis, 1949), p. 105, fig. 31.

<sup>6</sup> E. Gabrici, "Il Santuario della Malophoros a Selinunte," *Mont. Ant.* (1927), p. 53.

<sup>7</sup> Yavis, p. 179, 6.

<sup>8</sup> Yavis, p. 180, 10 and 13a.

The same short-ended view appears at the foot of a dendritis Hermes or Dionysos on an early fifth century B.C. kylix by Hieron.<sup>9</sup> The identification of gabled barriers, however, can best be realized from a Hadrianic small unit bronze issue of Delphi which has on its reverse the inscription "Delphon" and an altar with two gabled barriers shown in crude perspective (Fig. 2).<sup>10</sup> Though this issue is often found weakly struck and is executed in hasty style, inspection of numerous examples reveals that the series of cursive lines forming the upper triangles are unmistakably meant as barriers at each end of the altar shaft. The perspective view is completed with details of the altar's angled side and receding flank of pyramidal stairs. The molding which marks the ridge of the altar table is extended on the right side to give added depth. One end of the raking lines of the gable is carried beyond the triangular format to imply the palmette normally at the gable's peak. A smaller more schematic triangle rests on the altar table and seems only explainable as an abbreviated flame. A boucraneon is depended from the altar's side.

<sup>9</sup> A. Furtwangler, *Beschreibung der Vasensammlung, Königliche Museen zu Berlin*, p. 581, 2290.

<sup>10</sup> J. N. Svoronos, "Nomismatike Ton Delphon," *BCH* 20 (1896), p. 34, pl. XXVII, 6. Svoronos misidentified the type as an altar with a triangular top.



## A HOARD OF RHODIAN-TYPE DRACHMS

(PLATES I–X)

WALTER W. SHERIDAN

The recent discovery of a hoard of Rhodian type light weight silver drachms with eagle partially covering the right cheek of Helios makes it possible to study in greater depth the 2nd-century coinage of lower Caria. Approximately 200 of these coins have been presented by Jon Holtzman to the Field Museum of Natural History in Chicago and form the basis of the present catalogue.<sup>1</sup> The total content and the dispersal of other coins of the hoard are not known. Allegedly found on the mainland opposite Rhodes, the coins lack the PO Rhodian identification. The early coins have no identification on the reverse, but later ones have both letters and monograms, undoubtedly the marks of magistrates.

The eagle on the coins seems similar to the Zeus and Ptolemaic eagles and assumes an important position in relation to Helios, a divinity in the Carian area. The imposition of the eagle on the cheek of Helios suggests that the bird has divine attributes and could be associated with Zeus or Ptolemy, or possibly both.

The first hypothesis of origin, by Pellerin, based on only one coin inscribed MA, was that the coins came from Rhoda, a colony of Marsalus. Eckhel, Fauris de Saint Vincent, Mionnet and Lelewel accepted this view. In 1840, Longpérier rejected it on the basis that the economy of the region did not require these coins and that all known "Rhodian" types of Marsalus had PO inscribed on them.

Attributions to Lycian and Carian cities were subsequently made by various authorities, all on very limited material. With the appearance of a number of new specimens, Aşkidil Akarca considered both the conjectural origin of the coins and the meaning of the letters and monograms on their reverses, noting that two specimens

<sup>1</sup> I would like to express my appreciation to the Field Museum for making these coins available for study. [Thirty of these drachms were seen in trade in London, 1970, together with 18 Rhodian triobols (as *BMC* 291 ff.), all represented as coming from the same hoard-*ed.*]

carried the inscription MYΛA. A coin with the head of Augustus and the Helios and eagle seemed to relate to Mylasa. This evidence and the similarity of the eagle and the bird on two tetradrachms attributed to Mylasa caused her to theorize that these coins were minted at Mylasa.<sup>2</sup>

None of the hoard coins carries what appears to be an ethnic; the various types in this hoard being inscribed with letters and monograms which probably represent the names of magistrates having coining authority. However, attempts to identify the magistrates have been fruitless. The mintage must have been quite extensive since there is little die linkage between types.

If the eagle relates not only to Zeus but also to Ptolemy, it is possible that the coins were minted by a city whose policies were favorable to Ptolemy but whose allegiance was to Rhodes. Such a city was Caunus, located on the mainland directly to the northeast and important to Rhodes as a sea power. Control of this port city greatly increased Rhodian defensive and offensive capability and furnished a center for trade with the mainland.

B. V. Head at one time conjectured that Caunus issued these coins after it shook off Rhodian rule in 167 B.C.<sup>3</sup> I prefer his later opinion that the coins were minted starting in 189 B.C.,<sup>4</sup> when Caunus came under the dominion of Rhodes. To prevent discontent in a recognizably Ptolemaic area, the Rhodians were probably willing to allow some symbol of Ptolemy's favor to appear on a coinage otherwise Rhodian in type. The PO was probably missing for the same reason. It was important to the Rhodians not to have a disaffected major port so close to them on the mainland.

Following the death of Alexander, Caunus, along with the rest of Caria, had come under the dominion of the satrap Asander, then of Eumenes and then of Ptolemy Soter in 309 B.C. It later passed to Demetrius, who was betrayed by his Phoenician admiral Philocles who put into the hands of Ptolemy the best of Demetrius' fleet and captured Caunus for Ptolemy, giving the Egyptians a firm footing in Caria. In 198 B.C. Antiochus III began his expansion in Asia

<sup>2</sup> Aşkidil Akarca, *Les monnaies grecques de Mylasa* (Paris, 1959), p. 85.

<sup>3</sup> *BMCCaria*, p. xlv.

<sup>4</sup> *Historia Numorum*, p. 613.

Minor taking over all the cities of Coelesyria which had been subject to Ptolemy. Rhodian efforts in the following year prevented the fall of Myndus, Halicarnassus, Samos and Caunus and Rhodes emerged as the champion of the Carians against the Syrian threat.<sup>5</sup> After the defeat of Antiochus in 190, Rhodes received from Rome Lycia and Caria under the terms of the treaty of 189. Caunus was probably purchased by Rhodes from Ptolemy in the same year as was later averred by the Rhodians.<sup>6</sup> In any case Caunus became subject to Rhodes following the war.<sup>7</sup> In 168 Caunus revolted against Rhodes and was subdued, but Rome promptly ordered the Rhodians to withdraw from Caunus and Stratonicea.<sup>8</sup> The importance and value of Caunus to Rhodes was noted in an assertion by Rhodes in 165 B.C. that the loss of Caunus and Stratonicea resulted in an annual loss of revenue to the city of 120 talents.<sup>9</sup>

Evidence of wear indicates that the drachms without letters and monograms come at the beginning of the series. The earliest issue, nos. 1-13, has a rose with tendril on the reverse. The next issue, nos. 14-33, adds a bud to a stalk of the rose. As minting progressed, the design became more complicated, as tendrils were added to right and left (nos. 34-35) and finally an A appeared (no. 36). Numbers 36-40 represent the five varieties of the single-letter type known from the hoard. Four two-letter types (nos. 41-60) are followed by two types with a monogram and a letter on the reverse and a monogram on the obverse.

A long series with four letters or letters and monograms completes the collection here. The tendrils change form frequently and later varieties (nos. 158 ff.) have either one or two torches to right or left of the rose. Numbers 138-142 and 156-157 have double letters instead of single ones in one position. Numbers 99-103 have double letters in both upper positions.

<sup>5</sup> Livy. 33.20.12.

<sup>6</sup> Polybius 30.31.6.

<sup>7</sup> Appian, *Mithridatic Wars* 4.23.

<sup>8</sup> Polybius 30.21.3.

<sup>9</sup> Polybius 30.31.7.



## CATALOGUE

*Obv.*: Helios slightly facing r., with eagle standing, partly covering r. cheek, except as indicated.

*Rev.*: As indicated.

*Rose with tendril to r.*

- |                           |                                   |
|---------------------------|-----------------------------------|
| 1. 2.05 ↗                 | 8. 2.30 ↗                         |
| 2. 2.25 ↗                 | 9. Same obv. die as 1; same       |
| 3. 2.11 ↗                 | rev. die as 4. 2.40 ↗             |
| 4. 1.89 ↗                 | 10. 2.25 ↗                        |
| 5. 2.15 ↗                 | 11. Same obv. die as 7. 2.40 ↗    |
| 6. Same obverse die as 4. | 12. Same obv. die as 3. 2.25 ↗    |
| 2.19 ↗                    | 13. Same obv. and rev. dies as 4. |
| 7. 2.45 ↗                 | 2.35 ↑                            |

*Rose with bud on stalk to r.*

- |                                |                                 |
|--------------------------------|---------------------------------|
| 14. Same obv. die as 3. 2.00 ↗ | 24. 2.12 ↗                      |
| 15. 2.21 ↗                     | 25. Same obv. die as 4. 2.12 ↗  |
| 16. 2.20 ↗                     | 26. Same obv. die as 23. 2.25 ↗ |
| 17. 2.20 ↑                     | 27. Same obv. die as 3. 2.42 ↑  |
| 18. 2.20 ↗                     | 28. Same obv. die as 24; same   |
| 19. 2.26 ↑                     | rev. die as 19. 2.22 ↗          |
| 20. Same obv. die as 4. 2.11 ↑ | 29. Same obv. die as 4. 2.10 ↗  |
| 21. 2.31 ↗                     | 30. Same obv. die as 23. 2.10 ↑ |
| 22. 2.37 ↗                     | 31. 2.31 ↗                      |
| 23. 2.20 ↗                     | 32. Same obv. die as 3. 2.25 ↗  |
| SNGCop. 921. 2.18 ↑            | 33. 2.41 ↗                      |
| SNGLockett 2973. 2.24 ↑        | BMCCaria 210. 2.16              |

*Rose with tendrils to r. and l.*

- |            |                                |
|------------|--------------------------------|
| 34. 1.20 ↗ | 35. Same obv. and rev. dies as |
|            | 34. 2.21 ↗                     |

*Rose with stalks to r. and l.; A to r.*

36. 2.00 ↗

*Rose with stalks and buds to r. and l.; B in stalk to r.*

37. 2.00 ↑

*Rose with tendrils to r. and l.; Γ to r.*

38. 1.77 ↑

*Rose with tendrils to r. and l.; Δ to r.*

39. 2.32 ↑

*Rose with tendrils to r. and l.; K to r.*

40. 2.20 ↗

*Rose with tendrils to r. and l.; Δ to l. and H to r.*

41. 2.15 ↗

*Rose with tendrils to r. and l.; M to l. and A to r.*

42. 2.10 ↗

50. 1.90 ↑

43. 2.26 ↑

51. 1.77 ↑

44. 2.19 ↗

52. 2.25 ↑

45. 2.25 ↗

53. 2.20 ↗

46. 2.10 ↗

54. Same rev. die as 53. 2.19 ↗

47. 2.09 ↗

55. 1.53 ↗

48. Same obv. die as 43; same

56. 2.15 ↗

rev. die as 47. 2.00 ↗

57. 2.14 ↗

49. 2.29 ↑

58. Same rev. die as 57. 1.89 ↗

SNGCop. 922. 1.66 ↑

*Rose with tendrils to r. and l.; Π to l. and O to r.*

59. 1.94 ↗

*Rose with tendrils to r. and l.; Π to l. and P to r.*

60. 1.92 ↗

*Obv. adds Ϻ to l. of cheek*

*Rose with tendrils to r. and l.; Ϻ to l. and E to r.*

61. 1.93 ↗

63. Same obv. and rev. dies as

62. Same obv. die as 61. 1.92 ↑

61. 2.20 ↑

*Rose with tendrils to r. and l.; Ϻ to l. and Θ cut over E to r.*

64. Same obv. die as 61. 2.04 ↗

*Rose with tendrils to r. and l.;  $\begin{smallmatrix} \Lambda \Pi \\ \text{MA} \end{smallmatrix}$  in field*

65. 2.35 ↗

*Rose with tendrils to r. and l.;*  $\frac{A\pi}{\pi M}$  *in field*

66. 2.19 ↗

*Rose with tendrils to r. and l.;*  $\frac{AV}{MI}$  *in field*

67. 2.00 ↗

68. Same obv. die as 67. 2.15 ↗

*Rose with tendrils to r. and l.;*  $\frac{AY}{\odot\odot}$  *in field*

69. 2.26 ↑

*Rose with tendrils to r. and l.;*  $\frac{\Gamma O}{A\epsilon}$  *in field*

70. 2.15 ↑

78. Same obv. die as 71; same  
rev. die 77. 2.25 ↗

71. 2.15 ↑

72. Same obv. die as 71. 2.00 ↑

79. Same obv. die as 71. 2.20 ↗

73. Same obv. die as 71. 1.89 ↑

80. Same obv. die as 71. 1.89 ↗

74. Same obv. die as 71. 2.00 ↗

81. Same obv. die as 71. 1.80 ↑

75. Same obv. and rev. dies as  
71. 2.21 ↑

82. Same obv. die as 71. 2.29 ↗

76. 1.98 ↗

83. Same obv. die as 71; same  
rev. die as 77. 2.16 ↗

77. Same obv. die as 71. 2.38 ↗

SNGCop. 924. 2.28 ↑

*Rose with tendrils to r. and l.;*  $\frac{\Gamma O}{\Delta\Delta}$  *in field*

SNGAberdeen (Newnham Davis) 307. 2.37

*Rose with tendrils to r. and l.;*  $\frac{\Delta Y}{AM}$  *in field*

84. 1.86 ↑

*Rose with tendrils to r. and l.;*  $\frac{\Delta V}{\Delta\Delta}$  *in field*

85. 2.06 ↗

86. 2.19 ↗

BMCCaria 211. 1.88

*Rose with tendrils to r. and l.;*  $\frac{\Delta Y}{MA}$  *in field*

87. 2.01 ↗

*Rose with tendrils to r. and l.;*  $\frac{\Delta Y}{O\pi}$  *in field*

88. 1.71 ↗

*Rose with tendrils to r. and l.;*  $\frac{\Delta Y}{\pi M}$  *in field*

89. 2.15 ↗

91. Same obv. die as 89. 2.19 ↑

90. 2.45 ↑

*Rose with tendrils to r. and l.;  $\Lambda\omega$  in field*

92. 2.26 ↗

93. Same rev. die as 92. 2.26 ↗

*Rose with tendrils to r. and l.;  $\Lambda\epsilon$  in field*

94. Same obv. die as 71. 2.21 ↗

97. Same obv. die as 71; same

95. Same obv. die as 71; same

rev. die as 96. 2.60 ↗

rev. die as 94. 2.15 ↗

98. Same obv. die as 71; same

96. Same obv. die as 71. 2.80 ↗

rev. die as 96. 2.20 ↗

*Rose with tendrils to r. and l.;  $\begin{smallmatrix} ME \\ I \end{smallmatrix} \begin{smallmatrix} A \\ \equiv \\ A \end{smallmatrix}$  in field*

99. 2.31 ↗

102. Same obv. and rev. dies as

100. Same obv. die as 99. 2.30 ↗

99. 2.19 ↗

101. 1.92 ↗

103. Same obv. die as 99; same

rev. die as 101. 2.10 ↗

*Rose with tendrils to r. and l.;  $\begin{smallmatrix} ME \\ I \end{smallmatrix}$  (wreath?) in field*

*BMCCaria* 217. 2.53

*Rose with tendrils to r. and l.;  $\begin{smallmatrix} \Xi A \\ A\Theta \end{smallmatrix}$  in field*

104. 1.86 ↑

*Rose with tendrils to r. and l.;  $\begin{smallmatrix} \Xi A \\ AM \end{smallmatrix}$  in field*

105. 2.18 ↑

*Rose with tendrils to r. and l.;  $\begin{smallmatrix} \Xi A \\ \Delta\Delta \end{smallmatrix}$  in field*

106. 2.35 ↗

111. Same obv. die as 106. 1.59 ↗

107. Same obv. die as 106. 1.81 ↓

112. Same obv. die as 106. 2.12 ↗

108. 2.05 ↗

113. Same obv. die as 106. 2.09 ↗

109. Same obv. die as 108. 1.91 ↗

114. 1.70 ↑

110. Same obv. and rev. dies as

115. 2.01 ↗

108. 2.01 ↗

116. Same obv. die as 106. 2.01 ↗

*Rose with tendrils to r. and l.;  $\begin{smallmatrix} \Xi A \\ EO \end{smallmatrix}$  in field*

117. 1.85 ↑

119. Same obv. die as 117. 2.11 ↗

118. Same obv. die as 117. 2.09 ↗

Rose with tendrils to r. and l.;  $\frac{\Xi A}{\Theta A}$  in field

- I20. I.70 ↑  
I21. Same obv. die as I20. 2.05 ↑  
I22. Same obv. die as I20. 2.I6 ↑
- I23. Same obv. die as I20; same  
rev. die as I21. 2.I6 ↗

Rose with tendrils to r. and l.;  $\frac{\Xi A}{\Lambda M}$  in field

- I24. I.99 ↑                      I26. Same obv. and rev. dies as  
I25. Same obv. die as I24. 2.00 ↑                      I24. 2.09 ↑

Rose with tendrils to r. and l.;  $\frac{\Xi}{\text{MA}}$  in field

127. 2.35 ↑                      129. Same obv. die as 127; same  
128. Same obv. die as 127. 1.91 ↑                      rev. die as 128. 2.30 ↑

Rose with tendrils to r. and l.;  $\Xi \Delta$  in field

130. 2.27 ↑  
 131. Same rev. die as 130. 1.90 ↗  
 132. 2.21 ↗  
 133. 2.59 ↗  
 134. Same obv. die as 133. 2.10 ↗  
 135. Same rev. die as 130. 2.12 ↗  
 136. Same obv. die as 135. 1.89 ↗

Rose with tendrils to r. and l.;  $\Xi A$   
 $\boxtimes \lambda$  in field

*SNGC* *op.* 923. 1.91

Rose with tendrils to r. and l.;  $\begin{smallmatrix} \odot A \\ \equiv A \end{smallmatrix}$  in field

*BMCCaria* 212. 1.68

Rose with tendrils to r. and l.;  $\frac{\text{O}\Pi}{\Xi\text{A}}$  in field

137. 1.96 ↗

Rose with tendrils to r. and l.;  $\prod_{\mathcal{A} \in \mathcal{C}} \mathcal{A}$  in field ( $\mathcal{C}$  is cut over  $\Xi$ )

138. 2.19 ↗ 141. Same obv. die as 140; same  
139. Same rev. die as 138. 2.10 ↗ rev. die as 138. 2.24 ↗  
140. Same rev. die as 138. 2.25 ↗ 142. Same obv. die as 139; same  
rev. die as 138. 2.26 ↗

Rose with tendrils to r. and l.;  $\prod_{A \in \mathcal{A}} A$  in field

- I43. 2.06 ↗  
I44. 2.32 ↗

*Rose with tendrils to r. and l.;  $\Pi A$   
MY in field*

Weber Coll. 6736. 1.99

*Rose with tendrils to r. and l.;  $\Pi A$   
 $\Xi A$  in field*

BMCCaria 213. 2.46

*Rose with tendrils to r. and l.;  $\Pi A$   
 $\Sigma A$  in field*

146. 1.91 ↗

148. Same obv. die as 139. 1.95 ↗

147. Same obv. die as 139; same rev. die as 146. 1.90 ↗

BMCCaria 214. 1.85

*Rose with tendrils to r. and l.;  $\Pi E$   
AE in field*

BMCCaria 215. 2.23

*Rose with tendrils to r. and l.;  $\Pi E$   
 $\Delta \Delta$  in field*

149. 1.90 ↗

150. Same obv. die as 149. 2.00 ↗

*Rose with tendrils to r. and l.;  $\Pi E$   
II in field*

151. 2.48 ↗

*Rose with tendrils to r. and l.;  $\Pi E$   
 $\Lambda M$  in field*

152. 2.26 ↗

*Rose with tendrils to r. and l.;  $\Pi E$   
 $\Xi A$  in field*

BMCCaria 216. 1.95

*Rose with tendrils to r. and l.;  $\Pi A$   
AE in field*

153. 2.00 ↗

*Rose with tendrils to r. and l.;  $\Upsilon \Pi$   
 $\Delta \Delta$  in field*

154. 2.20 ↑

155. 2.00 ↗

*Rose with tendrils to r. and l.;  $\Upsilon \Pi$   
MI in field*

BMCCaria 218. 1.76

*Rose with tendrils to r. and l.;  $\Phi \Pi E$   
 $\Phi A$  in field*

156. 2.28 ↑

157. Same obv. and rev. dies as

156. 2.45 ↑



*Rose with tendrils to r. and l., torch to r.;  $\square \Delta$  in field*

158. 1.85 ↗

*Rose with tendrils to r. and l., torch to l.;  $\Delta Y$  in field*

159. 2.02 ↗

*Rose with stalk to r. and l., bud on stalk to l., torch to r.;  $\Delta \Omega$  in field*

160. 2.11 ↗

161. Same obv. as 160. 2.16 ↑

*Rose with tendrils to r. and l., bud to l., torch to r.;  $\Xi A$  in field*

162. 2.50 ↗

166. Same obv. die as 163. 1.90 ↗

163. 1.93 ↗

167. Same obv. die as 163. 2.10 ↗

164. Same obv. die as 163. 2.06 ↗

168. 1.90 ↗

165. Same obv. die as 163; same

169. 2.15 ↗

rev. die as 164. 2.05 ↗

170. 2.02 ↗

*Rose with tendrils to r. and l., torch to r. and l.;  $\Gamma O$  in field*

171. 1.90 ↗

*Rose with tendrils to r. and l., torch to r. and l.;  $\Delta I$  in field*

172. Same obv. die as 171. 2.10 ↗

173. Same obv. die as 171; same  
rev. die as 172. 2.01 ↗

*Rose with tendrils to r. and l., torch to r. and l.;  $\Xi A$  in field*

174. 2.21 ↑

177. Same obv. die as 174; same

175. Same obv. die as 174. 2.00 ↗

rev. die as 176. 1.90 ↗

176. Same obv. die as 174. 2.11 ↗

*Rose with tendrils to r. and l., torch to r. and l.;  $\square A$  in field*

178. 2.10 ↗

179. Same obv. die as 178. 2.12 ↗

*Rose with tendrils to r. and l., torch to r. and l.;  $Y \square$  in field*

180. 2.00 ↗

182. Same rev. die as 180. 2.00 ↑

181. Same obv. die as 180. 2.16 ↗

183. 1.90 ↗

*Unclassified*<sup>10</sup>

184. 1.50 ↗	194. 2.31 ↑
185. 1.92 ↑	195. 2.20 ↑
186. 1.97 ↗	196. 2.21 ↑
187. 2.09 ↑	197. 1.99 ↑
188. 2.50 ↑	198. 2.02 ↑
189. 1.98 ↑	199. 1.85 ↑
190. 1.96 ↑	200. 2.20 ↑
191. 1.83 ↑	201. 1.95 ↑
192. 2.05 ↑	202. 2.19 ↑
193. 1.89 ↑	203. 2.28 ↑

<sup>10</sup> The following twenty specimens were made available for publication after this article went to press. They are appended here to facilitate future research; all are illustrated – *ed.*



## THE DATED CISTOPHORI OF EPHEBUS

(PLATES XI–XV)

FRED S. KLEINER

Among the coinages of the Hellenistic world, the cistophori are perhaps the most remarkable. Exceptional in the choice of types and unique in weight standard, these curious coins pose more problems than they solve. Although they carry the mint marks of over a dozen known cities and often bear dates, there is still no general agreement on when the coinage was begun<sup>1</sup> nor why its peculiar weight standard was adopted.<sup>2</sup> Moreover, some of the most widely held views regarding the cistophori are open to question. One such view concerns the dated issues of Ephesus and is the subject of this paper. The larger questions concerning the beginning and purpose of the cistophoric coinage must be discussed elsewhere at greater length.<sup>3</sup>

It is universally accepted that the cistophori of Ephesus were undated prior to the formation of the Province of Asia in 134/133 B.C., and that thereafter an “almost unbroken” series of dated coins was issued for sixty-seven years. Both assumptions are surprising in light of the recorded evidence. Of the sixty-seven years of dated emissions, only twenty-four were known to Pinder.<sup>4</sup> Head was able

<sup>1</sup> The most recent discussions place the beginning of the cistophoric coinage about 188 B.C. and connect the cistophori with the enlargement of the Attalid kingdom in Asia Minor after the Treaty of Apamea. H. Seyrig, *RN* 1963, pp. 22–31; C. Kraay, *Greek Coins and History* (Oxford, 1969), pp. 8–9. I would place the date still later, ca. 166 B.C., after Eumenes II's great victory over the Galatians, and after the creation of a free port at Delos, which significantly altered the patterns of trade in the Hellenistic world.

<sup>2</sup> The cistophorus has been variously described as a silver piece of reduced Rhodian or Chian weight, as a didrachm on the Aeginetan standard, and as three Roman denarii or three Attic drachms. Compilation of approximately 1000 specimens struck before 128 B.C. reveals that the cistophoric tetradrachm was intended to weigh 12.60 grams at the time of its inception.

<sup>3</sup> A study of the cistophoric coinage of Asia Minor based on the notes of Sydney P. Noe is currently in preparation by the author.

<sup>4</sup> M. Pinder, “Über die Cistophoren,” *Abh. Berlin* 1855, pp. 533–635, nos. 25–54.

to add eleven to that list,<sup>5</sup> and since then only seven other years have been published, raising the total to a mere forty-two, or sixty-two per cent. By contrast, the published record of the pre-133 cistophori of Ephesus includes four issues with dates ranging from A (year 1) to AK (year 21). Both groups require reexamination.

## I. REGNAL DATES

An example of an early Ephesian cistophorus dated year A (PLATE XI, 6) was known to Imhoof-Blumer and illustrated in his study of the coinage of Pergamum.<sup>6</sup> More recently, two additional specimens have been published: one by Nekriman Olçay; the second in an auction catalogue of 1964.<sup>7</sup> All these pieces may be distinguished from the later year 1 pieces dated from the formation of the Province of Asia in 134/133 B.C. by the symbol in the right field of the reverses. The later series has a torch as the invariable civic badge of the city of Ephesus; the earlier pieces have a double cornucopiae as symbol. Nevertheless, both varieties have two features in common: the placement of the date and ethnic to the left, and the inclusion of a bee between the opposed heads of the serpents. This format, as well as the detail of the bee, may indicate that the two varieties of year A are not too distant in time.

Year B (PLATES XI, 7; XII, 1) was known to Pinder<sup>8</sup> and several pieces of this variety are included in catalogues of major public and private collections. The issue differs from that of year A and from the later series in two respects: the B is placed to the right and the symbol in the right field is a bust of Artemis Ephesia wearing a lofty headdress. One specimen published by Nekriman Olçay<sup>9</sup> shares an obverse die with pieces of year A (PLATE XI, 6-7).

<sup>5</sup> B. V. Head, *NC* 1880, pp. 149-151.

<sup>6</sup> F. Imhoof-Blumer, "Die Münzen der Dynastie von Pergamon," *Abh. Berlin* 1884, pl. IV, 7.

<sup>7</sup> N. Olçay, *Istanbul Arkeoloji Müzeleri Yilligi* 11-12 (1964), pp. 58-63 (Turkish) and 171-177 (English), no. 42. Kress Sale, Munich, June 1964, no. 286.

<sup>8</sup> Pinder, "Cistophoren," no. 19.

<sup>9</sup> Olçay, no. 58.

There are no known early Ephesian cistophori dated to years Γ-ΙΘ, but several are recorded for year K (20) (PLATES XI, 1-2; XII, 2). This issue was also listed by Pinder<sup>10</sup> and is represented in a few of the published collections. In this case the K is placed to the left and the symbol in the right field is a profile bust of Artemis the huntress.

The last series, AK (21—PLATE XI, 3-5) is likewise represented in Pinder<sup>11</sup> and in several published catalogues. It bears many points of resemblance with year A. A double cornucopiae is again the symbol in the right field; the A is to the left; and in a few examples a bee is placed between the serpents' heads. Moreover, the style of many of the obverse and reverse dies of the two years is so close that it seems almost certain that some of the dies of years A and AK were executed contemporaneously by the same man, rather than twenty years apart. The similarity is so striking that one of Mr. Newell's pieces, where the K has been erased, is almost indistinguishable from the pieces marked year A.<sup>12</sup> The significance of this observation will soon become apparent.

The following is a corpus of all specimens of these four years known to me.<sup>13</sup> For each denomination, Arabic numerals indicate

<sup>10</sup> Pinder, "Cistophoren," no. 24. Cf. the perceptive remarks of E. H. Bunbury, *NC* 1883, p. 183, note 3: "There is one coin described by Dr. Pinder and by Mr. Head in his list with the letter K in the field, which they do not regard as a date ... because the coin in question ... wants the long torch which appears to be characteristic of the usual series bearing dates. Notwithstanding this variation it appears to me more probable that the letter K is intended for a date."

<sup>11</sup> Pinder, "Cistophoren," no. 23.

<sup>12</sup> Series 2b, 4-b.

<sup>13</sup> I wish to thank the following curators for supplying casts or photographs of the material under their care: M. Jessop Price and G. K. Jenkins (London); G. Le Rider (Paris); H. Bloesch (Winterthur); M. Comstock (Boston); O. Mørkholm (Copenhagen); C. Kraay (Oxford); H.-D. Schultz (Berlin); N. Olçay (Istanbul); H. von Aulock; G. Pollard and M. Hendy (Cambridge); G. Dembski (Vienna); S. Taner (Ankara); M. Oeconomides (Athens); J. Oleson (Dewing Coll.); A. Robertson (Glasgow); H. E. van Gelder (Hague); and H. Küthmann (Munich). The pieces in the ANS collection are illustrated from casts prepared by Mrs. Persy Coronis. In addition, I profited from discussions or correspondence with C. Boehringer, H. Cahn, P. R. Franke and, above all, M. Thompson, without whose assistance this paper could never have been written. I hereby also gratefully acknowledge a grant from the American Philosophical Society which enabled me to visit the collections in Istanbul, Ankara, Izmir, Bergama and Athens in May/June 1971.



obverse dies, numbered consecutively for all series; lower case letters indicate reverse dies within a single series.

*Tetradrachms:*

*Obv.:* Cista mystica with half-open lid, from which a serpent issues to l.; all within an ivy wreath.

*Rev.:* Two coiled serpents with heads erect; between them an ornamented bow-case with strap at r., usually containing a strung bow at l. ΕΦΕ in l. field; other marks as indicated.

**SERIES 1:** To r., bust of Artemis r., with quiver; above l., K (year 20). Pinder 24.

1-a. ANS 12.50 ↗.

1-b. \*London, *BMC* 145 12.55 ↑ Struck over a Macedonian tetradrachm of the first district (PLATE XI, 1).

1-c. London 12.26 ↑.

1-d. Von Aulock, *SNG* 7833 12.58.

1-e. New York, Metropolitan Museum (Ward 661) 12.46; Schlessinger 13, 1935, 1264 12.30; Vienna 12.25 ↗.

2-f. \*ANS-ETN (Asia Minor 1928 hoard) 12.68 ↗ (PLATE XI, 2).

2-g. Paris 12.32 ↑; Winterthur 11.89.

**SERIES 2a:** To r., double cornucopiae; above l., A; above r., K (year 21). Pinder 23.

3-a. \*ANS-Strauss 12.54 ↑ (PLATE XI, 3); Boston 12.67 ↑.

3-b. Copenhagen 12.66 ↑.

3-c. Oxford 12.30.

4-d. \*Bern 12.52 (PLATE XI, 4).

4-e. London 12.65 ↑.

4-f. London 12.65 ↑.

4-g. Von Aulock, *SNG* 1857 12.45; Kress 148, July 1969, 171.

4-h. Berlin 12.39.

**SERIES 2b:** As 2a, except above center, bee.

4-a. \*Paris 12.40 ↑ (PLATE XI, 5); von Aulock, *SNG* 7841 12.74.

4-b. ANS-ETN (Asia Minor 1928 hoard) 12.67 ↗ K erased.

SERIES 3: To r., double cornucopiae; above l., A (year 1); above center, bee.

- 5-a. \*ANS-Strauss 12.35 ↑ (PLATE XI, 6); ANS-ETN (Asia Minor 1928 hoard) 12.51 ↑; ANS 12.45 ↑; Istanbul (Yeşilhisar 1963 hoard, 42) 12.65 ↑; Berlin 12.68.
- 5-b. ANS (Asia Minor 1955 hoard) 12.59 ↑; Kress 130, June 1964, 286.

SERIES 4: To r., facing bust of Artemis Ephesia with lofty head-dress; above r., B (year 2). Pinder 19.

- 5-a. Istanbul (Yeşilhisar 1963 hoard, 58) 12.67 ↗.
- 6-b. Istanbul (Yeşilhisar 1963 hoard, 57) 12.60 ↑.
- 6-c. \*ANS-ETN (Asia Minor 1928 hoard) 12.43 ↑ (PLATE XI, 7); von Aulock, SNG 7842 12.65.
- 6-d. London, BMC 144 12.65 ↑; Kress 130, June 1964, 285.
- 6-e. Berlin 12.52 (pierced); Vienna 12.38 ↗.
- 6-f. Serrure, April 1911, 43; Kress 149, November 1969, 243.
- 6-g. Lockett, SNG 2813 (Naville 1, April 1921, 2435) 12.64 ↑.
- 7-g. ANS-ETN (Asia Minor 1928 hoard) 12.71 ↗; Paris 12.30 ↑.
- 7-h. Von Aulock, SNG 1858 12.59.
- 7-i. Helbing, April 1927, 1774 = Helbing, March 1920, 111.
- 8-j. \*ANS-Strauss 12.65 ↑ (PLATE XII, 1); Istanbul (Yeşilhisar 1963 hoard, 56) 12.74 ↑.
- 8-k. Istanbul.
- 8-l. Kress 120, November 1961, 208.
- 9-m. ANS-BYB, SNG 1057 12.46 ↗; Kress 135, March 1966, 188.
- 9-n. ANS-BYB, SNG 1058 12.58 ↗; Istanbul (Yeşilhisar 1963 hoard, 60) 12.50 ↗; Commerce.

*Didrachms and Drachms:*

*Obv.:* Club, over which a lion's skin is draped; all within a wreath.

*Rev.:* Bunch of grapes, placed upon a vine leaf. ΕΦΕ in l. field; other marks as indicated.

SERIES 1: As above.

- 1-a. \*Naville 1, April 1921, 2439 6.02 (PLATE XII, 2).
- 2-b. \*Copenhagen, SNG 315 2.83 ↑ (PLATE XII, 3).

SERIES 2b or 3: To l., bee on side; to r., double cornucopiae.

3-a. \*ANS-Stephens 6.15 ↑ (PLATE XII, 4).

4-b. \*Berlin 2.73 (PLATE XII, 5).

It will be noticed that five of the pieces come from the 1963 Yeşilhisar hoard, buried in 130 B.C.,<sup>14</sup> and five others from the 1928 Asia Minor hoard, buried in 128 B.C. An additional seven pieces dated year B were recorded by Newell as part of the 1928 hoard, but have been dispersed.<sup>15</sup> In both hoards, the early series of dated pieces are well represented; only the latest pieces, dated from the formation of the Province of Asia, outnumber them. The former series was probably struck in the years just prior to 134 B.C., which accords well with the similarity in format between the two series noted above.

This assumption is confirmed by the evidence of the British Museum's piece, dated year K, which was struck over a Macedonian tetradrachm of the first district (PLATE XI, 1). Part of the legend MAK . . . ΠΡΩ . . . and the end of the club are still visible beneath the cistophoric obverse. The Macedonian series was issued between 158 and 149 B.C.,<sup>16</sup> and the cistophorus of year 20 must postdate 158 and is probably somewhat later. An unpublished hoard of cistophori and tetradrachms of Prusias I and II, Eumenes II, Demetrius I, and Side, buried ca. 150–140 B.C., does not contain any dated Ephesian cistophori.<sup>17</sup>

The range of possibilities is thus very narrow, and in the period between 158–150 and 134 B.C. there is only one set of dates that

<sup>14</sup> The lot of 100 cistophori acquired by the Istanbul Archaeological Museum contains several intrusions: nos. 30–37, 69–70, and 91. The remaining eighty-nine pieces constitute the larger part of a hoard of 104 pieces found at Yeşilhisar in 1963. The seven Ephesian pieces, nos. 62–68, dated 132–130 B.C. are in excellent condition and indicate that the hoard was buried ca. 130 B.C.

<sup>15</sup> The 1928 hoard was seen in several lots during 1928–29 by E. T. Newell and G. F. Hill. The London lot of sixty-three pieces was published by Hill (NC 1929, pp. 72–76) and the burial dated "soon after 129 B.C." The entire lot of 158 pieces has now been studied by the author; the only significant additions to Hill's record are two pieces of Ephesus dated year Γ (129/128 B.C.).

<sup>16</sup> This series has been discussed most recently by P. MacKay, *Ancient Macedonia, First International Symposium* (Salonica, 1970), pp. 256–264, with previous bibliography.

<sup>17</sup> Information regarding this hoard was kindly provided by C. Boehringer.

could correspond to years 1, 2, 20, and 21. In 139/138 B.C. Attalus II died during his twenty-first year as king of Pergamum and was succeeded by Attalus III. The years K and AK must refer to the twentieth and twenty-first years of the former's reign (140/139 and 139/138), and A and B to the first two years of his successor's rule (139/138 and 138/137). This would explain why pieces marked AK and A are so close in style and format. They were issued in the same *calendar* year, but commemorate different *regnal* years. This solution would also provide an explanation for the erased K on Newell's piece (4-b). Apparently the Ephesian mint had struck, but not yet issued, a series of AK pieces when the change in rulers occurred. In order to avoid restriking the now misdated coins, the K was simply removed, rendering the pieces indistinguishable from those shortly to be struck from the new year A dies.

There does not, however, seem to be any special reason why the series did not begin until the twentieth regnal year of Attalus II and was abruptly halted in the second year of Attalus III, nor why the dates appear on the coins of Ephesus and not of Pergamum itself. Perhaps the celebration of Attalus II's twentieth year on the throne, coinciding with his eightieth birthday, was sufficient reason for beginning the series. The cessation in 138/137 must remain unexplained.<sup>18</sup> In any case, the identification of Ephesian cistophori commemorating the regnal years of two Pergamene kings once again attests to the political hegemony of Pergamum at this time, and to its influence on (or control over) the issuance of silver coins by its possessions in Asia Minor.

## II. PROVINCIAL DATES

The following is a list of all issues of dated Ephesian cistophori after 134 B.C. known to me. Fifty-seven of the sixty-seven years are represented, as well as all three cistophoric denominations. Previously unpublished issues are indicated by an asterisk and are illustrated on Plates XII–XV.

<sup>18</sup> It is unlikely that any pieces marked Γ, Δ or Ε were ever struck. Several hoards buried between 130 and 128 B.C. do not contain any such pieces, although K, AK, A and B are well represented.

*Tetradrachms:*

*Obv.:* Cista mystica with half-open lid, from which a serpent issues to l.; all within an ivy wreath.

*Rev.:* Two coiled serpents with heads erect; between them an ornamented bow-case with strap at r., usually containing a strung bow at l. EΦE in l. field; torch in r. field; other marks as indicated.

1. Above center, bee; to l., A (year 1 = 134/133). Pinder 25; von Aulock, *SNG* 7844.
2. Above center, bee; to l., B (year 2 = 133/132). Pinder 26; Cambridge, *SNG* 4431; de Luynes 2597.
3. Above center, bee; to l., Γ (year 3 = 132/131). Pinder 27; von Aulock, *SNG* 7846.
4. To l., Γ. London, *BMC* 156; Copenhagen, *SNG* 317; von Aulock, *SNG* 7845; Glasgow, Hunter 26.
5. Above center, bee; to l., Δ (year 4 = 131/130). Copenhagen, *SNG* 319.
6. Above center, Δ. Pinder 28; Copenhagen, *SNG* 318; von Aulock, *SNG* 7847.
7. Above center, E (year 5 = 130/129). London, *BMC* 157; Copenhagen, *SNG* 320; von Aulock, *SNG* 1860; Cambridge, McClean 8087; Aberdeen, *SNG* 272.
- \*8. To l., lyre; to r., ME; above center, E. ANS-Strauss 12.60 ↗ (PLATE XII, 6).
- \*9. Above center, stag r.; to l., E. ANS-Strauss 12.67 ↗ (PLATE XII, 7).
- \*10. Above center, stag r.; to l., Γ (year 6 = 129/128). ANS-ETN 12.73 ↑ (PLATE XII, 8).
11. Above center, Artemis Ephesia; to l., Z (year 7 = 128/127). London, *BMC* 158.
12. Above center, stag r.; to l., H (year 8 = 127/126). Pinder 29; von Aulock, *SNG* 1861.
- \*13. Above center, Artemis Ephesia; to l., Θ (year 9 = 126/125). London 11.72 ↑ (PLATE XIII, 1).
- \*14. Above center, cornucopiae; to l., Θ. London 10.70 ↑ (PLATE XIII, 2).

- \*15. Above center, star; to l., I (year 10 = 125/124). Athens 411. 1969 12.60 ↖ (PLATE XIII, 3).
- \*16. Above center, round shield; to l., IA (year 11 = 124/123). Berlin 12.57 ↗ (PLATE XIII, 4).
- 17. Above center, Dioscurus pileus surmounted by star; to l., IB (year 12 = 123/122). Pinder 32 (Vatican IB was misread by Pinder as KA); Cambridge, McClean 8093.
- 18. Above center, caduceus; to l., IΓ. Berlin 12.49 ↑ (pierced); unpublished.
- \*19. Above center, caduceus; below C•AIN•C; to l., IΓ. A. S. Dewing Coll. (PLATE XIII, 5); below l., C•AI; below r., N•C•F. Berlin 12.64 ↑. All three varieties of year IΓ are struck from the same obverse die.
- \*20. Above center, torch; to l., IΔ (year 14 = 121/120). ANS 12.48 ↗ (PLATE XIII, 6).
- 21. Above center, torch; to l., IE (year 15 = 120/119). Cambridge, McClean 8088.
- 22. Above center, cornucopiae; to l., IЄ (year 16 = 119/118). Copenhagen, SNG 321.
- \*23. Above center, bunch of grapes; to l., IΣ (year 17 = 118/117). London 12.46 ↑ (PLATE XIII, 7).
- \*24. Above center, cornucopiae; to l., IΘ (year 19 = 116/115). New York, Private Coll. (PLATE XIV, 1).
- \*25. Above center, ear of grain; to l., AK (year 21 = 114/113). ANS-Strauss 12.29 ↖ (PLATE XIV, 2).
- 26. Above center, ear of grain; to r., KA. Copenhagen, SNG 322.
- 27. Above center, lyre; to l., BK (year 22 = 113/112). Von Aulock, SNG 1862; Cambridge, McClean 8089.
- 28. Above center, Helios head facing; to l., ΓK (year 23 = 112/111). Cambridge, McClean 8090-91.
- \*29. Above center, gorgoneion; to l., ΔK (year 24 = 111/110). ANS 12.50 ↑ (PLATE XIV, 3).
- \*30. Above center, winged caduceus; to l., EK (year 25 = 110/109). Hague 5691a 12.36 ↑ (PLATE XIV, 4).
- 31. Above center, winged caduceus; to l., CK (year 26 = 109/108). Cambridge, McClean 8092.



32. Above center, palm branch; to l., KH (year 28 = 107/106). Copenhagen, *SNG* 323.
33. Above center, trident; to l., KΘ (year 29 = 106/105). Copenhagen, *SNG* 324.
34. Above center, bunch of grapes; to l., Λ (year 30 = 105/104). Cambridge, McClean 8094-95.
- \*35. Above center, wreath; to l., bee, above which ΑΛ (year 31 = 104/103). ANS 12.61 ↑ (PLATE XIV, 5).
36. Above center, bucranium; to l., ΛΒ (year 32 = 103/102). Copenhagen, *SNG* 325.
37. Above center, owl; to l., ΛΓ (year 33 = 102/101). Cambridge, McClean 8096.
38. Above center, tripod; to l., ΛΔ (year 34 = 101/100). Pinder 33; London, *BMC* 159; von Aulock, *SNG* 7848; ANS-BYB, *SNG* 1059; Cambridge, McClean 8097.
- \*39. Above center, tripod; to l., ΛΕ (year 35 = 100/99). ANS-ETN 12.39 ↑ (PLATE IV, 6).
- \*40. Above center, crested helmet r.; to l., ΛϚ (year 36 = 99/98). ANS-ETN 12.27 ↑ (PLATE XIV, 7).
- \*41. Above center, crested helmet r.; to l., ΛΗ (year 38 = 97/96). Commerce 12.27 (PLATE XV, 1).
- \*42. Above center, crested helmet r.; to l., ΛΘ (year 39 = 96/95). ANS 12.64 ↑ (PLATE XV, 2).
43. Above center, candelabrum; to l., Μ (year 40 = 95/94). London, *BMC* 160; von Aulock, *SNG* 7849.
44. Above center, bee; to l., ΜΑ (year 41 = 94/93). Von Aulock, *SNG* 7850.
45. Above center, fulmen; to l., ΜΔ (year 44 = 91/90). Pinder 35.
46. Above center, serpent staff; to l., ΜΕ (year 45 = 90/89). Pinder 36; Copenhagen, *SNG* 326.
47. Above center, headdress of Isis; to l., ΜϚ (year 46 = 89/88). Pinder 34 and 37; Glasgow, Hunter 27.
48. Above center, filleted trident; to l., ΜΖ (year 47 = 88/87). London, *BMC* 161.
49. Above center, head of Isis facing; to l., ΜΗ (year 48 = 87/86). Pinder 38; Copenhagen, *SNG* 327; von Aulock, *SNG* 7851.

50. Above center, Nike holding wreath in r.; to l., MΘ (year 49 = 86/85). Pinder 39-40; London, *BMC* 162.
51. Above center, eagle on fulmen; to l., N (year 50 = 85/84). Von Aulock, *SNG* 7852.
52. Above center, Hermes holding wreath in r. and caduceus in l.; to l., NA (year 51 = 84/83). Pinder 41; London, *BMC* 163; Copenhagen, *SNG* 328-329; von Aulock, *SNG* 7853.
53. Above center, headdress of Isis; to l., NB (year 52 = 83/82). Pinder 42; London, *BMC* 164; Copenhagen, *SNG* 330.
54. Above center, bow in bow-case; to l., NΓ (year 53 = 82/81). Pinder 43; London, *BMC* 165; Cambridge, *SNG* 4432.
55. Above center, cornucopiae; to l., NΔ (year 54 = 81/80). Von Aulock, *SNG* 1863.
56. Above center, Artemis striding r., bow in l., drawing arrow with r.; to l., NE (year 55 = 80/79). London, *BMC* 166; von Aulock, *SNG* 1864; ANS-BYB, *SNG* 1060; Cambridge, *SNG* 4433.
57. Above center, owl on palm branch; to l., NЄ (year 56 = 79/78). Pozzi Coll. = Naville 1, April 1921, 2437.
58. Above center, Priapus facing; to l., NΣ (year 57 = 78/77). Pinder 44; Copenhagen, *SNG* 331.
- \*59. Above center, stag r.; to l., ΞA (year 61 = 74/73). London 12.41 ↗ (PLATE XV, 3).
60. Above center, ear of grain between opposed cornucopiae; to l., ΞΓ (year 63 = 72/71). Pinder 45.
61. Above center, palm branch between opposed cornucopiae; to l., ΞΓ. Pinder 46.
62. Above center, covered crater; to l., ΞΔ (year 64 = 71/70). Pinder 47; London, *BMC* 167; Copenhagen, *SNG* 332-333.
63. Above center, gorgoneion; to l., ΞE (year 65 = 70/69). London, *BMC* 169.
64. Above center, ear of grain between opposed cornucopiae; to l., ΞE. Pinder 48; Cambridge, *SNG* 4434.
65. Above center, poppy between opposed cornucopiae; to l., ΞE. London, *BMC* 168.
66. Above center, palm branch between opposed cornucopiae; to l., ΞE. Pinder 49.

- 67. Above center, quiver between opposed cornucopiae; to l.,  $\Xi$  (year 66 = 69/68). Pinder 50.
- 68. Above center, ear of grain between opposed cornucopiae; to l.,  $\Xi$ . Copenhagen, *SNG* 334; Cambridge, *SNG* 4435.
- 69. Above center, poppy between opposed cornucopiae; to l.,  $\Xi$ . London, *BMC* 170; von Aulock, *SNG* 7854; Weber 5866.
- 70. Above center, palm branch between opposed cornucopiae; to l.,  $\Xi$ . Pinder 51; London, *BMC* 171; Cambridge, McClean 8098.
- 71. Above center, quiver between opposed cornucopiae; to l.,  $\Xi$  (year 67 = 68/67). Pinder 52.
- 72. Above center, ear of grain between opposed cornucopiae; to l.,  $\Xi$ . Pinder 53; Glasgow, Hunter 28.
- 73. Above center, poppy between opposed cornucopiae; to l.,  $\Xi$ . Cambridge, *SNG* 4436–4437.
- 74. Above center, palm branch between opposed cornucopiae; to l.,  $\Xi$ . Pinder 54; London, *BMC* 172; Copenhagen, *SNG* 335; von Aulock, *SNG* 1865.

#### *Didrachms and Drachms*

*Obv.*: Club, over which a lion's skin is draped; all within a wreath.

*Rev.*: Bunch of grapes, placed upon a vine leaf.  $E\Phi E$  below l.; other marks as indicated.

- \*75. Above l., bee; below r., torch; below l., A (year 1 = 134/133). Munich 6.22 (PLATE XV, 4).
- 76. Above l., bee; below r., torch; below l., A. Von Aulock, *SNG* 1859.
- \*77. Below r., torch; above l.,  $\Sigma$  (year 26 = 109/108). ANS 3.13 ↑ (PLATE XV, 5).

The seventy-seven issues enumerated above represent almost every year from 133 to 67 B.C. and suggest that the "almost unbroken" series of issues was a continuous row of annual emmissions. The missing years (IH, K, KZ,  $\Lambda$ Z, MB, MΓ, NH, NΘ,  $\Xi$  and  $\Xi$ B) will undoubtedly turn up when new hoards are uncovered.

It is interesting that Ephesus is the only city to place provincial era dates on its cistophori,<sup>19</sup> a decision which possibly reflects a readier acceptance of Roman rule than in the other Attalid cities. It is perhaps significant that it was an *Ephesian* fleet that turned back the pretender Aristonicus, while other cities opened their gates to him as the rightful heir to the Attalid throne.<sup>20</sup>

In Issues 1-3, the date is placed in the upper left field, a bee is included between the serpents' heads and a torch occupies the right field. Whatever function the changing symbols served on the Ephesian cistophori prior to 134, the bee and torch have no comparable significance. The torch, which remains the civic symbol of the Ephesian mint until the introduction of cistophori of new types under Mark Antony, is really a subsidiary type, not a control mark; and the bee also seems to lack any temporal significance.

Issues 4-9 reflect a brief period of uncertainty with regard to the format of the cistophoric reverses and to the inclusion or omission of marks indicating personal control. The civic bee is usually omitted and the date is variously placed to the left or in the center, until in Issue 9 a satisfactory format is attained. Henceforth, the date is placed to the left and a symbol is located between the serpents' heads.

In Issue 8 (PLATE XII, 5), a monogram and symbol appear. That the symbol, as well as the monogram, is a mark of personal control is borne out by the erratic pattern of symbols used in subsequent years. In Issues 9, 10 and 12, the symbol is a stag, while in 11 and 13, Artemis Ephesia appears. In 20 and 21 a torch is used; in 14, 22 and 24, the symbol is a cornucopiae. The lyre of year E appears again in Issue 27, the cornucopiae is repeated in 55 and the stag in 59. In years KH, KΘ, Λ, ΑΛ, ΛΒ and ΛΓ, a different symbol is used with each date, while a tripod appears with both ΛΔ and ΛΕ, and a crested helmet is used in year ΛϚ and retained for ΛΗ and ΛΘ. Years ΞΕ, ΞϚ and ΞΖ employ four symbols per year with three of them retained throughout; and so on.

<sup>19</sup> The dates on the ΠΤΟΛ pieces of Tralles, as K. Regling, *Frankfurter Münzzeitung* 1932, pp. 1-5, has shown, are reckoned from Sulla's reconstruction of the Province of Asia in 85/84 B.C.

<sup>20</sup> Strabo 14.1.38.

Such a pattern of symbols cannot correspond to artists' signatures, months or the like. As the ME of Issue 8, the symbols can only be the personal marks of supervising magistrates, whose terms of office were unequal in length, or signify a liturgy, as Thompson has shown to be the case with the New Style silver coinage of Athens.<sup>21</sup>

The most curious of all the seventy-eight issues is year ΙΓ (PLATE XIII, 5) in which the name of a Roman magistrate is added in Latin, as on the later pro-consular cistophori. The official, C·ΑΙΝ·C·F cannot be identified with any known Roman magistrate in Asia in 122/121 B.C.<sup>22</sup>

### III. CISTOPHORIC OVERSTRIKES

The publication of the dated Ephesian cistophorus of 140/139 B.C. struck over a Macedonian tetradrachm of the first district (PLATE XI, 1) affords the opportunity for a general discussion of cistophoric overstrikes. PLATE XV, 6 illustrates a cistophorus of Tralles<sup>23</sup> which is also struck over a Macedonian tetradrachm. Very little of the undertype is visible, but in the left field of the reverse, somewhat obscured by the ethnic, . . . ΩΤΗΣ (reading downward) is still legible. PLATE XV, 7 reproduces a cistophorus of Ephesus<sup>24</sup> struck over a Thasian tetradrachm of the ΗΡΑΚΛΕΟΥΣ ΣΩΤΗΡΟΣ type.<sup>25</sup> All three

<sup>21</sup> M. Thompson, *The New Style Silver Coinage of Athens*, ANSNS 10 (New York, 1961).

<sup>22</sup> T. R. S. Broughton, *The Magistrates of the Roman Republic* (New York, 1952), p. 462 cites a C. (Atinius?) Labeo, governor of Asia "before 90, possibly before 100 B.C.;" *Ins. v. Priene* 121. D. Magie, *Roman Rule in Asia Minor* (Princeton, 1950), p. 1579, places C. Labeo's governorship in 120/119 B.C. B. V. Head, *Historia Numorum*<sup>2</sup> (Oxford, 1911), p. 575 and note 1, cites a variant of this piece, also dated ΙΓ: "The date and the early style of this cistophorus make it quite impossible to identify the magistrate whose name it bears with C·ΑΣΙΝ·C·F (Gallus), Proconsul of Asia in B.C. 6-5."

<sup>23</sup> ANS-ETN 12.53 ↑.

<sup>24</sup> ANS 12.11 ↑.

<sup>25</sup> The Thracian tetradrachms are traditionally dated after 146 B.C., but this date has recently been questioned by M. Thompson, who prefers to place the beginning of the Heracles series a few decades earlier (*ANSMN* 12 [1966], p. 61 and note 4; cf. G. Le Rider in *Guide de Thasos* [Paris, 1968], p. 190). The evidence of the Ephesian overstrike does not unequivocally rule out the traditional chronology, but it renders it exceedingly unlikely. My die study

cistophori attest to an elaborate process of restriking at the mints of Ephesus and Tralles, for the Attic weight pieces were apparently heated and trimmed to approximate the size and weight of a cistophoric flan before being struck with new dies. Why this costly operation was preferred to outright melting and restriking cannot be determined.

A fourth example of overstriking was already known to Pinder<sup>26</sup> and is now in Berlin. The cistophorus is a didrachm of Tralles weighing 6.20 grams; the undertype is a Rhodian didrachm with a facing Helios head, usually ascribed to the period before 189 B.C. In this case, the overstruck piece was not trimmed, and its unaltered flan has been used as evidence for the compatability of the two weight standards.<sup>27</sup>

The question of compatability is, however, quite different from that of acceptability. The four cistophori are all struck over fairly recent, fully legible foreign pieces. Whether or not the value of these coins could be easily converted into cistophoric denominations, the fact that restriking was carried out indicates that the Macedonian, Thasian and Rhodian pieces were not legal tender at Ephesus or Tralles.<sup>28</sup> The earlier regnal coinage of Pergamum is frequently found with other Attic weight pieces from cities as far away as Athens, and the Philetaerus types were often hoarded in Syria.<sup>29</sup> By contrast, cistophori are rarely found outside Attalid territory and hoards of

of the early cistophori suggests that the cistophorus in question ought to be dated about 145 B.C. It is highly improbable that the undertype is a Thracian tetradrachm of the very earliest variety which had been brought to Ephesus from Thasos and restruck in the very year it entered into circulation. Enough is visible of the Thracian undertype that a systematic comparison with other Thasian pieces might lead to an identification of the dies. If the issue marks were found to be rather late in the series, as seems likely, Miss Thompson's suggestion would be confirmed and the Thasian chronology placed on firm ground.

<sup>26</sup> Pinder, "Cistophoren," p. 551, pl. I, 16.

<sup>27</sup> See note 2 above.

<sup>28</sup> At a later date, even the Attic weight pieces of nearby Pamphylia had to be countermarked to insure their acceptability. R. Mowat, *RN* 1906, p. 291; Mowat, *Corolla Numismatica* (Oxford, 1906), pp. 189-207; S. P. Noe, *ANSMN* 6 (1954), pp. 85f.

<sup>29</sup> The hoards of Philetaerus coins are discussed in U. Westermark, *Das Bildnis des Philetairos von Pergamon* (Stockholm, 1960), with bibliography.

cistophori almost always exclude pieces of any other weight standard.<sup>30</sup> Actual exchanges of cistophori for Attic or Rhodian funds must have been restricted to international frontiers. Those foreign pieces which reached cities where cistophoric mints were located were apparently melted down and restruck. If it was the intention of Eumenes II in creating the cistophorus to make the new coins the only form of money valid for commercial transactions within Attalid territory, he was highly successful.

<sup>30</sup> The area of circulation of the cistophori has been most recently discussed by H. Seyrig, *RN* 1963, pp. 25–26, with commentary on earlier bibliography. What is so peculiar about the cistophori is that they rarely left the area in which they were struck. It is very difficult to believe that any Attalid decree would have prevented a foreign merchant from accepting cistophori as payment if his client provided an amount of cistophoric silver equal in bullion value to the asking price in another currency. Yet such transactions were apparently rare, especially prior to 128. Only one explanation as to why the cistophori tended to remain at home appears probable. The Attalid silver must have had a higher value within Pergamene territory than outside it. Some degree of overvaluation must be postulated or else the flexibility of the cistophoric weight standard would have encouraged rather than discouraged export of these coins.

# A HOARD OF SESTERTII FROM BORDEAUX AND THE PROBLEM OF BRONZE CIRCULATION IN THE THIRD CENTURY A.D.

THEODORE V. BUTTREY, JR.

In the spring of 1963 the Yale University numismatic collection purchased the Roman Imperial sestertii listed below. They had shortly before been bought as a hoard from a shoemaker in Bordeaux; otherwise nothing is known of their provenance. The coins certainly form a single hoard, as both their consistent light green corrosion and the regularity of erosion with respect to age testify. The limited extent of corrosion suggests that they must have been interred in some vessel, now lost. There is no reason to believe that the hoard is incomplete. Since it was not purchased from an antiquary or dealer, it is reasonable to suppose that the find spot was in Bordeaux itself or the vicinity.<sup>1</sup>

## CATALOGUE

### VESPASIAN

1. *Obv.*: IMP CAES VESPASIAN AVG P M TR P P P COS III (or IIII).

Head of Vespasian, laureate, r., aegis on breast.

*Rev.*: S C l. and r. in field. Mars advancing r., holding spear in r. hand and trophy in l.

*BMCRE* 567 or 621 Good/Poor 24.37.

<sup>1</sup> Mr. J. Coupry has inquired whether the hoard was possibly African in origin, given the amount of material being brought thence to France about the time of its purchase. The two certain African hoards discussed below include a relatively large proportion of post-Commodan sestertii and so are of quite a different nature from the Gallic hoards with which this paper is concerned. Our hoard is precisely in the pattern of the Gallic, containing well worn sestertii of the 2nd century but nothing of the 3rd. There is no reason to doubt its discovery in the area of Bordeaux, even if the exact provenance remains unknown.



## DOMITIAN

2. *Obv.*: IMP CAES DOMIT AVG GERM COS XV CENS PER P P.  
Head of Domitian, laureate, bearded, r.  
*Rev.*: IOVI VICTORI; S C in ex. Jupiter seated holding Victory and scepter.  
*BMCRE* 439 Good/Poor 23.91.
3. Illegible. Poor/Smooth 20.03.

## TRAJAN

4. *Obv.*: IMP CAES NERVAE TRAIANO AVG GER DAC P M TR P COS  
V P P. Bust of Trajan, laureate, r., with drapery on l. shoulder.  
*Rev.*: S.P.Q.R. OPTIMO PRINCIPI; S C l. and r. in field. Spes advancing l., holding flower in r. hand.  
*BMCRE* 810 Good/Poor 22.46.
5. *Obv.*: IMP CAES NERVAE TRAIANO AVG GER DAC P M TR P COS  
V P P. Bust of Trajan, laureate, r., with drapery on l. shoulder.  
*Rev.*: S P Q R OPTIMO PRINCIPI; S C in ex. Trajan on horse prancing r., brandishing javelin at kneeling Dacian.  
*BMCRE* 834 Good/Poor 22.36.
6. *Obv.*: IMP CAES NERVAE TRAIANO AVG GER DAC P M TR P COS  
VI P P. Bust of Trajan, laureate, r.  
*Rev.*: S P Q R OPTIMO PRINCIPI; ALIM ITAL in ex.; S C in field. Annona standing front, holding corn ears over boy, l., cornucopiae in l. hand.  
*BMCRE* 974 Good/Poor 26.58.
7. Illegible. Good/Poor 24.61.

## HADRIAN

8. *Obv.*: IMP CAESAR TRAIAN HADRIANVS AVG. Bust of Hadrian, laureate, cuirassed, r.  
*Rev.*: P M TR P COS III; S C in field. Ceres standing l., holding corn ears and torch.  
*BMCRE* 1245 Good/Poor 20.95.

9. *Obv.*: HADRIANVS AVGVSTVS• Head of Hadrian, laureate, r.  
*Rev.*: COS III; S C; Neptune standing l., foot on prow, holding dolphin and trident.  
*BMCRE* 1290 but *obv.* type (c) Good/Good 23.41.
10. *Obv.*: HADRIANVS AVGVSTVS• Head of Hadrian, laureate, r.  
*Rev.*: COS III; SC; Roma seated l. on cuirass, holding Victory and cornucopiae.  
*BMCRE* 1295 V. Good/Good 25.35.
11. *Obv.*: HADRIANVS AVGVSTVS P P• Head of Hadrian, laureate, r.  
*Rev.*: HILARITAS P R; S C in field; COS III in ex. Hilaritas standing l., holding palm and cornucopiae, at feet two small standing figures.  
*BMCRE* 1370 V. Good/Good 33.32.
12. As no. 11. *BMCRE* 1370 Good/Good 25.18.
13. *Obv.*: HADRIANVS AVGVSTVS• Bust of Hadrian, laureate, draped, r.  
*Rev.*: INDVLGENTIA AVG P P; S C in field; COS III in ex. Indulgentia seated l., holding scepter in l. hand.  
*BMCRE* 1420 Good/V. Good 25.90.
14. *Obv.*: HADRIANVS AVG COS III P P• Bust of Hadrian, laureate, r., with drapery on l. shoulder.  
*Rev.*: FELICITAS AVG; S C• Felicitas standing l., holding branch and caduceus.  
*BMCRE* 1499 V. Good/Good 25.46.
15. As no. 14. *BMCRE* 1499 Fine/V. Good 24.64.
16. *Obv.*: HADRIANVS AVG COS III P P• Head of Hadrian, laureate, r.  
*Rev.*: FIDES PVBLICA; S C in field. Fides standing r., holding two corn ears and two poppies in r. hand, basket of fruit in l.  
*BMCRE* 1504 V. Good/V. Good 22.89.
17. *Obv.*: HADRIANVS AVG COS III P P• Bust of Hadrian, laureate, r., with drapery on l. shoulder.  
*Rev.*: IVSTITIA AVG; S C in field, not in ex. Justitia seated l., holding patera and scepter.  
*BMCRE* 1523 *var.* V. Good/Good 23.58.
18. *Obv.*: HADRIANVS AVG COS III P P• Head of Hadrian, laureate, r.  
*Rev.*: S C in field. Diana holding arrow in r. hand and resting l. hand on bow, upright on ground.  
*BMCRE* 1542 but *obv.* type (d) V. Good/Fine 27.92.

19. *Obv.*: HADRIANVS AVG COS III P P• Bust of Hadrian, laureate, r., with aegis on l. shoulder.  
*Rev.*: As no. 18.  
*BMCRE* 1546 V. Good/V. Good 22.40.
20. *Obv.*: HADRIANVS AVG COS III P P• Head of Hadrian, laureate, r.  
*Rev.*: SALVS AVG; S C in field. Salus standing r., feeding snake from patera.  
*BMCRE* 1555 V. Good/Good 25.91.
21. As no. 20. *BMCRE* 1555 Fine/V. Good 24.94.
22. *Obv.*: HADRIANVS AVG COS III P P• Head of Hadrian, laureate, r.  
*Rev.*: SPES P R; S C in field. Spes advancing l., holding flower in r. hand.  
*BMCRE* 1560 V. Good/Good 25.13.
23. *Obv.*: HADRIANVS AVG COS III P P• Bust of Hadrian, laureate, draped, r.  
*Rev.*: ALEXANDRIA; S C in ex. Alexandria reclining l., holding corn ears and branch, to l. three corn ears growing.  
*BMCRE* 1716 Good/Poor 25.05.
24. *Obv.*: HADRIANVS AVG COS III P P• Bust of Hadrian, laureate, draped, r.  
*Rev.*: RESTITVTORI ACHAEAE S C• Hadrian standing l., raising kneeling figure of Achaëa. In center, vase with palm.  
*BMCRE* 1782 Good/Good 25.65.

## L. AELIUS CAESAR

25. *Obv.*: L AELIVS CAESAR• Head of Aelius, bare, r.  
*Rev.*: TR POT COS II; PANNONIA across field; S C in field. Pannonia standing front, holding vexillum in r. hand.  
*BMCRE* 1919 V. Good/Good 25.33.

## ANTONINUS PIUS

26. *Obv.*: IMP T AEL CAES HADRI ANTONINVS AVG PIVS• Bust of Antoninus, laureate, draped, r.  
*Rev.*: P M TR POT COS DES II S C (or COS II S C)• Pax standing l., holding branch and cornucopiae.  
*BMCRE* p. 170# or 1136 Good/Good 22.67.

27. *Obv.*: ANTONINVS AVG PIVS P P TR P COS III• Head of Antoninus, laureate, r.  
*Rev.*: ANNONA AVG; S C in field. Annona standing r., holding corn ears in r. hand over modius and corn ears, and cornucopiae in l.  
*BMCRE* 1226 V. Fine/V. Good 24.94.
28. *Obv.*: ANTONINVS AVG PIVS P P TR P COS III• Head of Antoninus, laureate, r.  
*Rev.*: IMPERATOR II; S C in field. Victory flying r., holding trophy.  
*BMCRE* 1610 Fine/V. Good 22.57.
29. *Obv.*: ANTONINVS AVG PIVS P P TR P• Head of Antoninus, laureate, r.  
*Rev.*: COS IIII; S C in field. Antoninus standing l., holding branch and spear.  
*BMCRE* 1666 V. Fine/V. Good 25.13.
30. *Obv.*: ANTONINVS AVG PIVS P P TR P• Head of Antoninus, laureate, r.  
*Rev.*: COS IIII; PAX AVG and S C l. and r. in field. Pax standing l., holding torch in r. hand, setting light to a heap of arms, cornucopiae in l.  
*BMCRE* 1698 V. Good/Good 18.92.
31. *Obv.*: ANTONINVS AVG PIVS P P TR P COS IIII• Head of Antoninus, laureate, r.  
*Rev.*: S C in field. Minerva advancing r., holding javelin and shield.  
*BMCRE* 1707 Fine/V. Good 26.77.
32. *Obv.*: ANTONINVS AVG PIVS P P TR P COS IIII• Head of Antoninus, laureate, r.  
*Rev.*: S C in field. Securitas seated l. on throne, propping head on l. hand, holding scepter in r.  
*BMCRE* 1713 Fine/Fine 30.00.
33. *Obv.*: ANTONINVS AVG PIVS P P TR P COS IIII• Head of Antoninus, laureate, r.  
*Rev.*: SALVS AVG; S C in field. Salus standing l., feeding snake out of patera in r. hand, holding rudder on globe in l.  
*BMCRE* 1715 V. Good/V. Good 24.44.
34. *Obv.*: ANTONINVS AVG PIVS P P TR P XV (or XVI)• Head of Antoninus, laureate, r.

*Rev.*: SALVS AVG COS IIII; S C in field. Fortuna standing r., holding rudder on globe in r. hand, cornucopiae in l.; or same legend but Salus feeding snake out of patera and holding scepter in l. hand.

*BMCRE* 1901 or 1925 V. Good/V. Good 25.16.

35. *Obv.*: ANTONINVS AVG PIVS P P TR P XVI• Head of Antoninus, laureate, r.

*Rev.*: INDVLGENTIA AVG COS IIII S C• Indulgentia seated l., holding scepter in l. hand.

*BMCRE* 1922 V. Fine/Fine 23.75.

36. *Obv.*: ANTONINVS AVG PIVS P P TR P XVII• Head of Antoninus, laureate, r.

*Rev.*: LIBERTAS COS IIII; S C in field. Libertas standing front, holding pileus and scepter.

*BMCRE* 1947 V. Good/V. Good 25.08.

37. *Obv.*: ANTONINVS AVG PIVS P P TR P XVIII• Head of Antoninus, laureate, r.

*Rev.*: LIBERTAS COS IIII; S C in field. Libertas standing front, holding pileus and scepter.

*BMCRE* 1962 Fine/Good 31.06.

38. *Obv.*: ANTONINVS AVG PIVS P P IMP II• Bust of Antoninus r. with drapery on l. shoulder.

*Rev.*: TR POT XIX COS IIII; S C in field. Pax standing l., holding branch downwards in r. hand, cornucopiae in l.

*BMCRE* 1999 Good/V. Good 22.95.

39. *Obv.*: ANTONINVS AVG PIVS P P IMP II• Head of Antoninus, laureate, r.

*Rev.*: TR POT XX COS IIII; S C in field. Annona standing r., holding rudder in r. hand and modius with corn ears on l. knee, l. foot advanced and set on prow.

*BMCRE* 2013 Fine/V. Good 27.50.

40. *Obv.*: ANTONINVS AVG PIVS P P IMP II• Head of Antoninus, laureate, r.

*Rev.*: TR POT XXI COS IIII; S C in field. Annona standing l., holding corn ears over modius, l., and rudder on prow in l. hand.

*BMCRE* 2038 V. Good/Fine 24.72.

41. *Obv.*: ANTONINVS AVG PIVS P P TR P XXIII• Head of Antoninus, laureate, r.  
*Rev.*: PIETATI AVG COS IIII S C• Pietas standing front, holding globe and child, on either side a small girl standing l. raising l. arm.  
*BMCRE* 2088 V. Fine/Fine 27.19.

## FAUSTINA I

42. *Obv.*: DIVA FAVSTINA• Bust of Faustina I, draped, r.  
*Rev.*: AETERNITAS; S C in ex. Aeternitas seated l., holding phoenix on globe and scepter.  
*BMCRE* 1415a V. Good/Good 21.31.
43. *Obv.*: DIVA FAVSTINA• Bust of Faustina, draped, r.  
*Rev.*: AETERNITAS; S C in field. Aeternitas standing l., holding phoenix on globe in r. hand, fold of skirt in l.  
*BMCRE* 1490 V. Good/V. Good 28.17.
44. *Obv.*: DIVA FAVSTINA• Bust of Faustina, draped, r.  
*Rev.*: AVGVSTA S C• Ceres standing l., holding torch in each hand.  
*BMCRE* 1517 V. Good/V. Good 25.95.
45. *Obv.*: DIVA FAVSTINA• Bust of Faustina, draped, r.  
*Rev.*: IVNO; S C in field. Juno standing l., holding patera and scepter.  
*BMCRE* 1531 V. Good/Good 24.77.

## M. AURELIUS CAESAR

46. *Obv.*: AVRELIVS CAESAR AVG PII F COS• Bust of Marcus Aurelius bare, r., with drapery on l. shoulder.  
*Rev.*: PIETAS AVG; S C in ex. Priestly emblems.  
*BMCRE* 1405 but *obv.* type (b) V. Good/Good 27.36.
47. *Obv.*: AVRELIVS CAES AVG PII F• Head of Marcus Aurelius, bare, r.  
*Rev.*: VIRTVS COS II S C• Virtus in military dress holding spear and parazonium.  
*BMCRE* 1784 Fine/Good 26.91.

48. *Obv.*: AVRELIVS CAES ANTON AVG PII F• Head of Marcus Aurelius, bare, r.  
*Rev.*: TR POT XIII COS II; S C in field. Spes advancing l., holding up flower bud.  
*BMCRE* 2082 V. Good/V. Good 25.04.
49. *Obv.*: AVRELIVS CAESAR AVG PII F• Head of Marcus Aurelius, bare, r., with drapery on l. shoulder.  
*Rev.*: TR POT XIII COS II; S C in field. Mars wearing cloak, advancing r. holding spear and trophy.  
*BMCRE* 2104 V. Good/Good 26.92.

## FAUSTINA II

50. *Obv.*: FAVSTINAE AVG PII• Bust of Faustina II, draped, r.  
*Rev.*: VENVS; S C in field. Venus standing front, holding apple in r. hand, l. hand on rudder.  
*BMCRE* 2148 V. Good/V. Good 24.33.
51. *Obv.*: FAVSTINA AVG PII• Bust of Faustina, draped, r.  
*Rev.*: S C in field. Diana standing front, holding arrow in r. hand, l. hand on bow.  
*BMCRE* 2180 Good/Good 20.08.
52. As no. 51. *BMCRE* 2180 V. Good/Good 23.29.

## MARCUS AURELIUS

53. *Obv.*: IMP CAES M AVREL ANTONINVS AVG P M• Bust draped, cuirassed, head bare, r.  
*Rev.*: SALVTI AVGVSTOR TR P XVII; S C in field; COS III in ex. Salus standing front, feeding snake from patera, holding scepter in l. hand.  
*BMCRE* 1037 V. Good/V. Good 21.93.
54. *Obv.*: M ANTONINVS AVG ARM PARTH MAX• Head, laureate, r.  
*Rev.*: TR POT XXIII IMP V COS III; S C in field; FORT RED in ex. Fortuna seated l., holding rudder and cornucopiae.  
*BMCRE* 1347 Fine/V. Good 24.24.
55. *Obv.*: M ANTONINVS AVG TR P XXIII• Head, laureate, r.  
*Rev.*: SALVTI AVG COS III; S C in field. Salus standing front, feeding snake from patera, holding scepter in l. hand.  
*BMCRE* 1376 Fine/Good 29.26.

56. *Obv.*: M ANTONINVS AVG TR P XXV• Head, laureate, r.  
*Rev.*: COS III; S C in field. Jupiter seated l., holding thunderbolt and scepter.  
*BMCRE* 1383 V. Good/V. Good 23.80.
57. *Obv.*: M ANTONINVS AVG TR P XXV• Head, laureate, r.  
*Rev.*: COS III; S C in field. Mars advancing r., holding spear and trophy.  
*BMCRE* 1385 V. Fine/Fine 23.99.
58. *Obv.*: IMP M ANTONINVS AVG TR P XXV• Head, laureate, r.  
*Rev.*: PRIMI / DECEN / NALES / COS III / S C in oak wreath.  
*BMCRE* 1398 Fine/V. Fine 24.67.
59. *Obv.*: IMP M ANTONINVS AVG TR P XXV• Head, laureate, r.  
*Rev.*: VOTA SOL DECENN; S C in field; COS III in ex. Marcus Aurelius standing front, sacrificing out of patera in r. hand over altar l., bull prostrate behind altar.  
*BMCRE* 1400 Fine/Good 27.22.
60. *Obv.*: M ANTONINVS AVG TR P XXVI• Head, laureate, r.  
*Rev.*: IMP VI COS II SC• Mars advancing r., holding spear and leaning on shield.  
*BMCRE* p. 622\* V. Good/Good 23.33.
61. *Obv.*: M ANTONINVS AVG TR P XXVI• Head, laureate, r.  
*Rev.*: IMP VI COS III; VIC GER on shield; S C in field. Victory standing front, holding shield on trunk of palm tree.  
*BMCRE* 1423 Fine/Good 24.94.
62. *Obv.*: M ANTONINVS AVG TR P XXVI• Bust, laureate, cuirassed, r.  
*Rev.*: IMP VI COS III S C• Roma seated l. on cuirass and shields, holding spear in r. hand.  
*BMCRE* 1422 Fine/V. Good 22.68.
63. *Obv.*: M ANTONINVS AVG TR P XXVII• Head, laureate, r.  
*Rev.*: GERMANICO AVG IMP VI COS III; S C in ex. German man and woman on either side of trophy.  
*BMCRE* 1433 V. Good/V. Good 26.56.
64. *Obv.*: M ANTONINVS AVG TR P XXVIII• Head, laureate, r.  
*Rev.*: IMP VI COS III; S C in ex. Jupiter seated l. on throne, holding Victory and scepter.  
*BMCRE* 1470 Fine/Good 26.07.



65. *Obv.*: M ANTONINVS AVG GERM SARMATICVS• Bust, laureate, cuirassed, r.  
*Rev.*: TR P XXX IMP VIII COS III S C• Pietas standing l., dropping incense on altar and holding box of perfumes.  
*BMCRE* p. 647\* Fine/Fine 22.63.

## LUCIUS VERUS

66. *Obv.*: L AVREL VERVS AVG ARMENIACVS• Head, laureate, r.  
*Rev.*: TR P IIII IMP II COS II; S C in field (or TR POT V, etc.). Mars advancing r., holding spear and trophy.  
*BMCRE* 1109 or 1253 V. Good/Poor 27.26.
67. *Obv.*: L VERVS AVG ARM PARTH MAX• Head, laureate, r.  
*Rev.*: TR POT VIII IMP V COS III; S C in field. Aequitas seated l., holding scales and cornucopiae.  
*BMCRE* 1341 Fine/V. Good 28.76.

## DIVUS VERUS

68. *Obv.*: DIVVS VERVS• Head of Divus Verus, bare, r.  
*Rev.*: CONSECRATIO; S C l. and r. of globe. Eagle standing on globe, head l.  
*BMCRE* 1363 V. Fine/V. Good 26.08.
69. As no. 68. *BMCRE* 1363 Good/Good 26.84.

## FAUSTINA II

70. *Obv.*: FAVSTINA AVGVSTA• Bust of Faustina II, draped, r.  
*Rev.*: HILARITAS; S C in field. Hilaritas standing front, holding palm and cornucopiae.  
*BMCRE* 911 Fine/Good 27.62.
71. As no. 70. *BMCRE* 911 Fine/V. Good 26.17.
72. *Obv.*: FAVSTINA AVGVSTA• Bust of Faustina, draped, r.  
*Rev.*: IVNONI REGINAE; S C in field. Juno standing front, holding patera and scepter, peacock standing to l.  
*BMCRE* 919 V. Good/Poor 28.11.
73. *Obv.*: FAVSTINA AVGVSTA• Bust of Faustina, draped, r.  
*Rev.*: LAETITIA; S C in field. Laetitia standing front, holding wreath up in r. hand, scepter in l.  
*BMCRE* 924 obv. 928 rev. V. Fine/V. Good 22.64.

74. *Obv.*: FAVSTINA AVGVSTA• Bust of Faustina, draped, r.  
*Rev.*: SALVTI AVGVSTAE; S C in ex. Salus seated l. feeding snake  
 out of patera, l. arm on seat.  
*BMCRE* 942 Fine/V. Good 22.42.

## DIVA FAUSTINA

75. *Obv.*: DIVA FAVSTINA PIA• Bust of Faustina, draped.  
*Rev.*: AETERNITAS; S C in ex. Aeternitas standing front, holding  
 phoenix on globe in r. hand, resting l. arm on column.  
*BMCRE* 1563 V. Good/Good 23.02.

## LUCILLA

76. *Obv.*: LVCILLAE AVG ANTONINI AVG F• Bust of Lucilla,  
 draped, r.  
*Rev.*: CONCORDIA; S C in ex. Concordia seated l., holding patera  
 and double cornucopiae.  
*BMCRE* 1140 Fine/V. Good 23.89.
77. *Obv.*: LVCILLAE AVG ANTONINI AVG F• Bust of Lucilla,  
 draped, r.  
*Rev.*: IVNONI LVCINAE; S C in ex. Juno seated l. on throne,  
 holding flower and infant.  
*BMCRE* 1154 Fine/V. Good 22.09.
78. As no. 77. *BMCRE* 1154 V. Good/Good 20.53.
79. *Obv.*: LVCILLAE AVG ANTONINI AVG F• Bust of Lucilla,  
 draped, r.  
*Rev.*: PIETAS; S C in field. Pietas standing front, r. hand extended  
 over altar, perfume box in l. hand.  
*BMCRE* 1161 V. Good/Good 26.32.
80. As no. 79. *BMCRE* 1161 V. Good/V. Good 24.55.

## COMMODUS CAESAR

81. *Obv.*: L AVREL COMMODO CAES AVG FIL GERM SARM• Bust of  
 Commodus, draped, head bare, r.  
*Rev.*: SPES PVBLICA; S C in field. Spes advancing l., holding  
 flower in r. hand, skirt in l.  
*BMCRE* 1531 Fine/V. Good 22.33.

## COMMODUS

82. *Obv.*: M ANTONINVS COMMODVS AVG• Head of Commodus, laureate, r.  
*Rev.*: TR P VII IMP IIII COS II P P (or PM TRP XI, or XII, etc.); S C in field. Roma in military dress, standing front, holding Victory and spear.  
*BMCRE* 477 or p. 804\* or 598 V. Good/Good 18.73.
83. *Obv.*: M COMMODVS ANTONINVS AVG PIVS• Head of Commodus, laureate, r.  
*Rev.*: P M TR P VIIII IMP VI COS IIII P P; S C in field. Minerva advancing r., with javelin and round shield.  
*BMCRE* 527 Fine/V. Good 18.67.

## DIVUS ANTONINUS PIUS

84. *Obv.*: DIVVS M ANTONINVS PIVS• Head of Divus Marcus, bare, r.  
*Rev.*: CONSECRATIO; S C in field. Eagle with wings spread standing r. on garlanded base.  
*BMCRE* 389 Fine/V. Good 24.76.

## CRISPINA

85. *Obv.*: CRISPINA AVGVSTA• Bust of Crispina, draped, r.  
*Rev.*: SALVS; S C in field. Salus seated l. on throne, feeding snake out of patera.  
*BMCRE* 422 Fine/V. Good 18.67.

## SEPTIMIUS SEVERUS

86. *Obv.*: L SEPT SEV PERT AVG IMP VIIII• Head, laureate, r.  
*Rev.*: P M TR P V COS II P P S C• Pax seated l., holding branch and scepter.  
*BMCRE* p. 153# Fine/V. Good 19.80.

Gallic hoards of 2nd- and 3rd-century bronze are common, but are usually found in northern France and Belgium. Another hoard of Imperial sestertii was discovered near Bordeaux in 1895, at Naujac,

near Lesparre, in the Gironde.<sup>2</sup> Its composition is not astonishing, except perhaps for a lack of coins earlier than Trajan (Table I); certainly 1st-century sestertii were still in circulation under Antoninus Pius, as many other hoards testify. The burial date of the Naujac hoard is indicated by its latest coins, those of Antoninus Pius, Faustina I, and Marcus Aurelius Caesar, all dated in *BMCRE* up to A.D. 144. The hoard was buried within the next year or two.

Our Bordeaux hoard had a later burial, for its last coin was struck early in the reign of Septimius Severus (Table I). However, though the Naujac deposit is easily dated, there is a difficulty in dating the Bordeaux coins which not only calls into question the date of burial, but also raises doubts about the date of *any* bronze hoard whose terminal coins fall between the 180's and the middle of the third century A.D. The difficulty arises in the fact that all the coins show manifest wear. It is to be expected that the earliest coins of a hoard should be the most worn if the coins had been taken from circulation at one time; we equally expect that the latest should be fairly sharp under the same circumstances. Such is not the case here, where the piece of Septimius Severus is as badly worn as some of the coins of the Antonines. Severus' sestertius must have been in circulation for years, perhaps decades, before burial; its date of production, A.D. 196–7, provides merely a *terminus post quem* without in any way indicating when the hoard was buried, and therefore why.

The problem of the 3rd-century Gallic bronze hoards has already been the subject of some comment because of this peculiarity in their composition.<sup>3</sup> A number of Gallic hoards from the reign of Postumus (ca. A.D. 260–269) include a good quantity of 2nd-century coins, but few, or none at all, of the 3rd century until Postumus himself. Mommsen noted that under the circumstances the dating of 3rd-century bronze hoards is precarious.<sup>4</sup> Subsequent studies have confirmed his observation. For example, the Malonne hoard (Table I) is very similar in structure to the Bordeaux hoard; it too contains a series

<sup>2</sup> Camille de Mensignac, "Description d'une cachette de grands bronzes romains découverte dans la commune de Naujac, arrondissement de Lesparre (Gironde)," *ASocArchBordeaux* 21 (1896), pp. 45–64.

<sup>3</sup> Most recently, Marcel Thirion, *Les trésors monétaires gaulois et romains trouvés en Belgique* (Brussels, 1967).

<sup>4</sup> Theodor Mommsen, *Histoire de la monnaie romaine* 3 (Paris, 1873), p. 128.

of 2nd-century sestertii ending with Septimius Severus.<sup>5</sup> It also contains a number of antoniniani extending in time to the reign of Valerian. These reveal that the hoard was buried more than half a century after the production of its latest sestertius. Given the comparison, it is equally possible that the sestertii of the Bordeaux hoard were buried as late. The Beveren-sur-Lys hoard of sestertii includes the regular run of 2nd-century pieces, together with two 3rd-century pieces, the later of Maximinus.<sup>6</sup> The Elverdinge hoard is constructed similarly, with 3rd-century sestertii as late as Maximinus; it includes as well 196 sestertii of Postumus struck in the 260's, which date the hoard correctly.<sup>7</sup>

One can easily construct a list of finds which close with Valerian/Gallienus or Postumus, but which otherwise include sestertii of rather earlier emperors. The hoard from Mercy extends only to Commodus, except for sestertii of Postumus (0% of the pre-Postuman sestertii are later than Commodus);<sup>8</sup> the Malonne hoard, to Septimius Severus (1.7%); the Froidmont hoard, to Macrinus (0.8%);<sup>9</sup> the Chauny hoard, to Severus Alexander (3.1%);<sup>10</sup> the Elverdinge hoard, to Maximinus (3.6%); the Picquigny hoard, to Gordian III (3.6%);<sup>11</sup> the Vannes hoard, to Philip (6.0%).<sup>12</sup> The burial of every one of these hoards would normally have been attributed to the reign of the emperor last mentioned, had it not been for the additional presence of coins of the 250's or 260's.

A particularly interesting case is that of the Froidmont hoard which we can show to have been buried under Postumus although it contains no coin struck later than Macrinus. The burial date is

<sup>5</sup> Marcel Thirion, "Malonne: sesterces de Domitien à Septime-Sévère et antoniniens de Gordien III à Valérien-Gallien," *Les trésors monétaires antiques du Musée de Namur, Études Numismatiques* 2 (Brussels, 1961), pp. 53-79.

<sup>6</sup> Marcel Thirion, "Le trésor de Beveren-sur-Lys," *RBN* 1963, pp. 128-164.

<sup>7</sup> Marcel Thirion, "Les trésors de sesterces d'Elverdinge et de Werken," *RBN* 1960, pp. 81-198.

<sup>8</sup> Pierre Bastien, *Le monnayage de bronze de Postume* (Wetteren, 1967), p. 98 no. 13.

<sup>9</sup> Paul Naster, "Trouvaille de sesterces à Froidmont (1949)," *RBN* 1951, pp. 161-166.

<sup>10</sup> Bastien, *Postume*, p. 96 no. 2.

<sup>11</sup> Bastien, *Postume*, p. 98 no. 15.

<sup>12</sup> Claude Brenot, "Le trésor de Vannes (Morbihan)," *RN* 1963, pp. 159-163.

provided by a sestertius of Trajan (*RBN* 1951, p. 162, no. 19), described as bearing a countermark "en petits losanges sur la chevelure de l'empereur." The interest of this piece was noted by Thirion who discovered another example in the Elverdinge hoard, but did not draw the necessary conclusion from it.<sup>13</sup> Bastien has now studied the bronze of Postumus thoroughly, including the fabrication of double sestertii by the overstriking of earlier sestertii, or by the swindle of reengraving a sestertius so as to convert the emperor's laurel wreath to a radiate crown, thus doubling the value of the coin.<sup>14</sup> This is the meaning of the counterstamp on the coin from Froidmont. This counterstamping can have taken place only in Gaul under Postumus. The denomination of the double sestertius had been introduced, at a high weight, by Trajan Decius, and was struck otherwise only by Postumus, who reduced it to a weight comparable to that of the old sestertii still in circulation, specifically to that of the Trajanic piece. Consequently, the coin of Trajan in its present state derives from the reign of Postumus and dates the burial of the Froidmont hoard to the 260's.

This conclusion destroys any possibility of systematically dating the Gallic bronze hoards of the first half of the 3rd century A.D. If a hoard buried under Postumus need contain no coin of the immediately preceding emperors, or indeed of Postumus himself, the dating of the hoard by means of the latest coin it contains is impossible. No Gallic bronze hoard whose latest coin was struck by Commodus or any of his successors prior to the 260's can be securely dated; there is only the obvious *terminus post quem* of the latest coin, so that such hoards are unusable as evidence in the historical investigation of internal unrest, Germanic invasions, and the like.<sup>15</sup>

<sup>13</sup> Thirion, *Elverdinge*, pp. 99–101 and no. E414.

<sup>14</sup> Bastien, *Postume*, pp. 91–92; 30 and nos. 33c, 41a, 85d, 100c1.

<sup>15</sup> Sture Bolin, "Die Funde römischer und byzantinischer Münzen im freien Germanien," *Bericht DArchInst, Römisch-Germanische Kommission* 19 (1929), pp. 105–6, illustrated the impossibility of dating silver hoards whose latest coin was struck by Commodus, for they were buried as late as the 5th century A.D.; he believed that the Commodan *aes* hoards were trustworthy (pp. 107–8). This may be the case in Germany, where post-Commodan bronze seems to have been in greater supply than in Gaul. See Bolin, *Fyndnen av romerska Mynt i det fria Germanien* (Lund, 1926), p. 184, Table 23. In Gaul the Commodan bronze hoards are as untrustworthy as the silver in Germany.

This situation arises because, as the Postuman hoards show, very few 3rd-century sestertii were in circulation in Gaul. Note the percentages of post-Commodan, pre-Postuman sestertii in the hoards cited above.<sup>16</sup> *Aes* coins there were, and in quantity, but these were almost entirely 2nd-century pieces or even badly worn 1st-century issues, still in circulation after 150 or 175 years. Mommsen believed, wrongly, that the hoards showed all sestertii to have become very rare in Gaul by the 260's.<sup>17</sup> In another 10 years that was to become the case, but under Postumus the old sestertii still circulated; indeed, as a compliment to them, Postumus issued large quantities of his own sestertii and double sestertii.

In confirmation we have the Postuman overstrikes. Bastien has shown beyond question that the bronze of Postumus with radiate crown was intended as a genuine double sestertius in spite of the radically reduced weight.<sup>18</sup> Old sestertii were frequently used as flans for the new denominations by both official and unofficial Postuman mints. Bastien lists no fewer than 67 such overstrikes.<sup>19</sup> An additional 14 Postuman overstrikes were identified by Thirion in the Elverdinge and Werken hoards.<sup>20</sup> Three pieces have been cited in the Mercy hoard.<sup>21</sup> There must be many more.

Thus the map in Bastien, *Postume*, p. 38, illustrating the findspots of hoards buried under Postumus, must be understood as only partial; it cannot include hoards which contained none of his coinage and therefore cannot be recognized as having been buried in the 260's. The same strictures apply to the hoards attributed emperor by emperor from the Antonines to Valerian/Gallienus and Postumus in Adrien Blanchet, *Les trésors de monnaies romaines* (Paris, 1900), pp. 33-37. The Gallic citations in Lorenzina Cesano, "Sulla circolazione delle monete di bronzo nei primi tre secoli dell'Impero romano. Ripostiglio del Testaccio," *AttiMemIN* III.2 (1919), pp. 35-70 show an unusually large number of Commodan hoards. It is impossible to construct the chronological table of the bronze hoards which Miss Cesano attempted, for there is no way of determining their date of burial in the late 2nd and first half of the 3rd centuries.

<sup>16</sup> See Thirion, *Elverdinge*, pp. 114-17. The average proportion of post-Commodan (excluding Postuman) sestertii in 13 hoards buried under Valerian/Gallienus or Postumus is 4.1%.

<sup>17</sup> Mommsen, *Histoire* 3, p. 128.

<sup>18</sup> Thirion, *Elverdinge*, pp. 29-31.

<sup>19</sup> Bastien, *Postume*, nos. 143b, 171, 156b, 246a, 275b, 279b1, 279b2, 285c, 288c and all examples of nos. 382-394.

<sup>20</sup> Thirion, *Elverdinge*, pp. 166-7.

<sup>21</sup> Bastien, *Postume*, p. 98, no. 13.

These pieces were often imperfectly overstruck; earlier types were not wholly obliterated in the second striking. Consequently, it is frequently possible to decipher the earlier type, and thus to discover just what earlier sestertii were in circulation under Postumus. Of the 67 pieces in Bastien, the earlier types of 30 are either identified by him or are legible from the plates (for especially clear examples, see his nos. 383a, 386e, 386h). The range of original types is as follows:

Trajan	386f, i, j; 392b; 394b
Hadrian	392e, g; 393d; 394f
Antoninus Pius	383a, c; 386h, n; 390a; 392d; 394a, e
Faustina I or II	171
Marcus Aurelius	246a; 388a; 394c
Lucius Verus	279b; 386g
Faustina II	386e; 389b; 394d
Faustina II or Lucilla	387b
Commodus	382; 392a; 393a

Yet others, whose undertype is not certain, "proviennent des règnes de Trajan ou d'Hadrien sans qu'il soit toujours possible d'attribuer le sesterce à l'un ou l'autre empereur."<sup>22</sup> It is likely that the uncertain undertypes are to be attributed as well to Antoninus Pius and Marcus Aurelius.

Thirion was able to identify the origin of five of his 14 overstruck sestertii: Trajan, Hadrian (3), Faustina II. A sixth piece is probably of Marcus Aurelius Caesar, while three more are at least generally 2nd-century. The three examples in the Marcy hoard were overstruck on Antoninus Pius, Marcus Aurelius, and Commodus issues.

The evidence is clear: we have several dozen identifiable Imperial sestertii overstruck by Postumus, yet not one of them is originally a 3rd-century product. Perhaps 3rd-century sestertii do exist overstruck, but they are yet to be found and must be rare. The evidence is consonant with the Postuman hoard evidence: in the 260's in Gaul sestertii did circulate in great numbers, but they were almost entirely coins of the 2nd century. The 3rd-century bronzes, struck in some quantity at Rome, for some reason were not circulating in

<sup>22</sup> Bastien, *Postume*, p. 92.



Gaul. Consequently, Gallic bronze hoards of the 3rd century were necessarily composed for the most part of 2nd-century coins, in some cases entirely of 2nd-century coins, whose latest coin may be several decades earlier than the actual date of burial.

This discontinuity in sestertius circulation is attested as well for Britain,<sup>23</sup> but it was not a general phenomenon throughout the western half of the Empire. Hoards show that sestertii struck at Rome under the Severi and their successors circulated in Italy, although until Severus Alexander the numbers produced seem to have been markedly less than under the Antonines. More important, the composition of sestertius hoards is by no means the same in every area of Italy. Table II illustrates a variety of Italian hoards by burial date. Five northern hoards buried under Severus Alexander, Philip and Trebonianus show a gradual increase in the number of 3rd-century sestertii brought into circulation; yet as late as Trebonianus (A.D. 251-3) about half the sestertii in circulation were still a conglomeration of 1st- and 2nd-century issues. Further to the south, however, the proportion of new issues in circulation was rising rapidly, to the extent that by the reign of Valerian over 90% of the total was post-Commodan. The same phenomenon is to be seen in the Sardinian hoards, which must have been derived directly from Rome. Eight Sardinian hoards, buried under Trajan Decius, Trebonianus and Valerian/Gallienus contain post-Commodan sestertii in the average proportions of 82.7%, 84.6% and 89.0% respectively. (These Italian finds are a complete antithesis to the contemporary or slightly later Gallic hoards buried under Postumus, where the post-Commodan sestertii average less than 5%.)<sup>24</sup>

The composition of the African hoards is equally far-removed from the Gallic (Table II). The Rusguniae hoard, buried under Trebonianus, included 43.6% post-Commodan sestertii,<sup>25</sup> almost the

<sup>23</sup> R. A. G. Carson, "The Alcester Find of Antoniniani and Sestertii," *NC* 1969, pp. 123-8. This is a mixed hoard of 95 antoniniani from Gordian III to Postumus and 47 sestertii from Trajan to Commodus, plus one Pertinax, one Julia Mamaea and two Postumus.

<sup>24</sup> See note 16. Comparison of the earlier 3rd-century hoards from Italy with hoards from Gaul is impossible, since Gallic hoards cannot be dated.

<sup>25</sup> Pierre Salama, "La trouvaille de sesterces de Rusguniae," *Revue Africaine* 101 (1957), pp. 205-245.

same as the contemporary northern Italian hoard from San Martino del Pizzolano (44%),<sup>26</sup> but only about half as many as the Sardinian hoard from Villaurbana (84.6%).<sup>27</sup> Yet when the Guelma hoard was buried just five or six years later, about three-quarters of its sestertii were post-Commodan.<sup>28</sup> If the composition of the two hoards is at all representative of the currency of the 250's, there must have been considerable importation of bronze under Valerian. The imported coins came from Italy, and doubtless were taken from circulation rather than brought directly from the mint. For as we move from the Rusguniae to the Guelma hoard, we find not a uniquely large influx of bronzes of Valerian alone, but a large percentage increase in the representation of each emperor from Severus Alexander to Trebonianus, that is, in the very coins so abundantly represented in the central and southern Italian hoards and therefore in Italian circulation.<sup>29</sup>

Bronze hoards of our period seem not to have been found in Spain. In northern and eastern Europe the situation is somewhat similar to that in Gaul, although not quite so striking. Four sestertius hoards have been found in East Prussia, containing almost no post-Commodan examples.<sup>30</sup> They are likely to have travelled from Gaul via the Rhine or Danube and the trade routes running north and east.

<sup>26</sup> Solone Ambrosoli, "Il ripostoglio di San Marino del Pizzolano," *RIN* 1897, pp. 507-11.

<sup>27</sup> Antonio Taramelli, "Ripostiglio di grandi bronzi imperiali di Villaurbana (Cagliari)," *RIN* 1915, pp. 73-84.

<sup>28</sup> Robert Turcan, *Le trésor de Guelma* (Paris, 1963).

<sup>29</sup> Sture Bolin, *State and Currency in the Roman Empire to 300 A.D.* (Stockholm, 1958), p. 246, note 5, speaks of "the extreme scarcity of senatorial copper coins from the period after Septimius Severus in hoards found outside Italy." This is not true for Africa, nor, as we shall see, as emphatically true for the East or even Germany as for Gaul.

<sup>30</sup> V. V. Kropotkin, *Klady Rimskikh Monet na Territorii SSSR* (Moscow, 1961) [corrigenda and addenda, Kropotkin, "Novye Nakhodki Rimskikh Monet v SSSR," *NE* 6 (1966), pp. 74-102] nos. 87 (Galba-Commodus), 105 (Trajan-Commodus), 106 (Trajan-Commodus) and 110 (Domitian-Septimius Severus). It is possible that some of the Roman coins found in Eastern Europe arrived directly from Italy via the Ljubljana Gap. In such a case we would expect to find a higher proportion of 3rd century sestertii than if the coins had moved through Gaul. The Dacian finds may confirm this hypothesis. See Iudita Winkler, "Circulația monetară la Apulum," *AMusNapocensis* 2 (1965), pp. 215-256 (28 % of the sestertii are post-Commodan).

Such hoards have not been found further to the east and south in the Soviet Union, where one might have supposed that the Roman coin finds derive rather from the Black Sea trade.<sup>31</sup> Coins of the Gallic emperors are exceedingly rare in Russian finds; Kropotkin lists one example each of Postumus, Marius and Victorinus. Yet the one piece of Marius was discovered in the vicinity of Kherson (Kropotkin no. 1115), raising the possibility that other Roman coins discovered in the Ukraine had arrived overland by the northern route from Gaul.

There is a large difference in quantity, and a small and perhaps significant difference in the composition of the northwest and southeast finds in the Soviet Union. By far the greatest number of sestertius finds are from the northwest, in East Prussia, Lithuania, Latvia and Estonia. These areas produced some 570 sestertii as random grave offerings or small deposits, as well as the 1440 pieces contained in the four hoards noted above. Against this, only 151 sestertii have been found in all the rest of the Soviet Union, notably from the Russian Republic, Belorussia, and the Ukraine. Their distribution is as follows:

	Augustus- Commodus		Septimius Severus- Trebonianus	
	No.	%	No.	%
East Prussia, etc.	491	86.1	79	13.9
Ukraine, etc.	123	81.5	28	18.5

These results do not have the force of a hoard analysis. No hoard of 151 sestertii buried under Trebonianus would have included, as "Ukraine, etc." do, 20 pieces representing every one of the Julio-Claudians. Thus the percentage of earlier coins is too high, and of the later (18.5%) too low, for the actual conditions of the currency in the 3rd-century Ukraine. But these figures do indicate that 3rd-century *aes* arrived in more substantial quantity in the Black Sea area than in Gaul.

On the other hand, in the excavation of the Athenian Agora some 199 sestertii as well as 61 *aes* of smaller denomination and 123

<sup>31</sup> Kropotkin, *Klady*, Tables 9, 24-25.

unidentified *aes* were discovered.<sup>32</sup> The sestertii provide 41% of all the coins from Nerva through Philip; the total *aes*, 80%. The minor *aes* becomes much scarcer after Commodus, but it is only ca. 250 that a sudden drop in sestertius circulation occurs. Trajan Decius contributes five sestertii of a total of 17 coins (29%), Trebonianus, three sestertii out of 25 (17%). The total of coins of Valerian/Gallienus shoots up dramatically to 473 pieces, but includes only one sestertius.

The 199 sestertii from Athens divide into Nerva-Commodus, 80 pieces (40%), and post-Commodan, 119 pieces (60%). Here too the distribution pattern of sestertii lost at random is not equivalent to the contents of a single hoard. From the point of view of the 3rd-century circulation the earliest pieces will be too heavily represented. Even so, the percentage of post-Commodan sestertii at Athens is decisive evidence that the coins circulated there in quantities which proportionately approached those illustrated for Italy and Africa by the hoards. This is likely to be true even for the very latest sestertii. At Athens the sestertii dating from Trajan Decius to Valerian/Gallienus account for 4.5% of the sestertius finds; in the Guelma hoard, for example, they total 10.8% of the hoard. The dissymmetry of the Agora finds with respect to specifically 3rd-century circulation brings these two figures even more closely together.

Several considerations arise from this survey, apart from the confirmation of the unreliability of post-Commodan bronze hoard chronology in Gaul. First, the rarity of 3rd-century sestertii in Gaul is an aspect of their disparate distribution throughout the Empire. This is not merely a unique local phenomenon. Although no other area was so dramatically affected, the Gallic situation is probably directly connected with the relative scarcity of 3rd-century sestertii in northern Italy.

Second, the question of the distribution of other denominations and metals has hardly been raised. The *aes*, dupondii and *asses* seem to have spread through the West in patterns quite different from those of the sestertii. Some sestertius hoards included a smattering

<sup>32</sup> Margaret Thompson, *The Athenian Agora*, Vol. II, *The Coins* (Princeton, 1954).

of "Middle Bronze." These have not been considered in this study both because of their insignificant number and because the ancient tendency to hoard by denomination deprives them of meaning since they are out of context. But when a hoard of "Middle Bronze" does appear, its structure is radically different from that of a sestertius hoard. Thus the Sticciano Scalo hoard, buried under Trebonianus, was composed largely of "Middle Bronze" of which 5.5% were post-Commodan issues,<sup>33</sup> while the contemporary sestertius hoards from Martellago<sup>34</sup> and San Martino del Pizzolano included an average of 49.7% post-Commodan sestertii. Whether this discrepancy reflects different levels of production of the various denominations, or different modes of diffusion in the currency, remains to be determined. At any rate, it is an admonition that the Bordeaux hoard raises a *sestertius* problem, not necessarily a *bronze* problem.

Third, the cessation of sestertius importation into Gaul has been connected with the depreciation of the denarius,<sup>35</sup> although the evidence is thin and the argument doubtful. There is a difficulty in the chronology: the sestertii seem to fall off with the end of the reign of Commodus, perhaps even one or two years before his death. But Guey has shown that a significant drop in the silver content of the denarius occurred first under Septimius Severus, in 194.<sup>36</sup> One might suppose that sestertii reached Gaul not by direct importation, but casually in trade, so that the early Severan issues had not yet reached Gaul when the depreciation of the denarius began. However, other difficulties arise: we do not know that a change in the *aes*: silver ratio occurred, although it is often alleged, and the much more important silver: gold exchange seems to have remained unaltered.<sup>37</sup>

<sup>33</sup> Guglielmo Maetzke, "Scoperta di un tesoretto monetale disperso (Sticciano Scalo, Grosseto)," *NScavAnt* 1957, pp. 324-7.

<sup>34</sup> G. Pellegrini, "Ripostiglio di monete imperiali romane (Martellago, Venezia)," *NScavAnt* 1917, pp. 217-220.

<sup>35</sup> So, e.g. Thirion, *Elverdinge*, 85-6 and *Trésors monétaires*, 12, 16. He suggests as well "une surabondance, en Gaule, de sesterces frappées entre 107 et 190, qui rendent inutiles de nouvelles importations de sesterces." The two suggestions seem to contradict each other.

<sup>36</sup> Julien Guey, "L'aloi du denier romain de 177 à 211 après J.-C.," *RN* 1962, pp. 73-140.

<sup>37</sup> T. V. Buttrey, "Dio, Zonaras and the Value of the Roman Aureus," *JRS* 51 (1961), pp. 40-5.

Further, why should the depreciation of silver affect exchange with *aes* so radically in Gaul rather than universally? It is true that mediaeval exchange records provide many instances of varying rates of exchange of the same monies in different areas. But if the sestertius was so much more desirable in Italy than in Gaul, the natural consequence would have been that the old bronze flow back from Gaul to Italy. For even the old worn bronze was often of better weight than the new, as the weights in the catalogue above show. Yet there was no flow; the 2nd-century sestertii remained in Gaul in circulation until as late as the 260's.

We know very little about the method of bronze distribution throughout the Empire. The frequent observation that gold and silver were sent to the army to cover pay and expenses, or that they seem to accompany the Emperor on his journeys, will not explain the wealth of 3rd-century bronze circulating in Italy. Perhaps there was some mechanism by which coin was ordered from the mint for distribution by local authorities or by banks. Surely something of the sort was the case in the East, where the mint of Caesarea in Cappadocia was striking coins for Cyrene,<sup>38</sup> and at the major mints of Asia Minor which produced coin for mintless cities.<sup>39</sup> One might therefore assume that some Gallic authority had regularly imported *aes* coinage during the 2nd century, but lost interest in it during the 3rd, for any number of reasons. In this case the depreciation of the silver under Severus need not have entered the question at all.

Whatever the answer, it will be part of a general explanation of the entire structure of the production and circulation of Roman coinage in the late 2nd and the 3rd centuries A.D.; we are not dealing merely with some Gallic aberration.

<sup>38</sup> *BMCCyrenaica*, p. ccx.

<sup>39</sup> Konrad Kraft, "Stadt- oder Städte-Prägung im kaiserzeitlichen Kleinasien," *XI<sup>e</sup> Congrès international des sciences historiques (Stockholm, 21-28 August 1960) Résumés des communications*, pp. 63-4.

TABLE I

	<i>Naujac</i> Sest. MB	<i>Bordeaux</i> Sest.	<i>Malonne</i> Sest. Ant.	<i>Beveren- sur-Lys</i> Sest. MB	<i>Elverdinge</i> Sest. MB	<i>Froidmont</i> Sest. MB
Augustus-Nerva		3	1	20	13	10
Trajan	32	4	3	41	45	11
Hadrian	96	18	10	106	81	47
Antoninus Pius	7	27	11	93	103	26
Marcus Aurelius		29	18	111	92	16
Commodus		4	12	44	41	7
Pertinax						
Didius Julianus						
Septimius Severus		1	1	2	8	
Caracalla					1	
Macrinus						1
Elagabalus					2	
Severus Alexander				1	2	
Maximinus				1	1	
Gordian I & II						
Balbinus						
Pupienus						
Gordian III						
Philip			7			
Trajan Decius			16			
Trebonianus Gallus			12			
Aemilian			11			
Valerian/Gallienus			69			
Postumus					196	
TOTAL SESTERTII						
(excluding Postumus)	135	86	58 <sup>40</sup>	455 <sup>40</sup>	390 <sup>40</sup>	127 <sup>40</sup>
% post-Commodan sestertii (excluding Postumus)		1.2	1.7	0.9	3.6	0.7

<sup>40</sup> The totals include otherwise unidentified 2nd-century sestertii.

TABLE II

Hoard buried under:	Northern Italy	% post-Commodan sestertii	Central and Southern Italy and Sardinia	% post-Commodan sestertii	Africa	% post-Commodan sestertii
Septimius Severus						
Caracalla						
Macrinus						
Elagabalus						
Severus Alexander	Besano <sup>41</sup>	25.0				
Maximinus						
Gordian III						
Philip	Busca <sup>42</sup>	32.0	Pozallo <sup>44</sup>	60.1		
	San Polo di Piave <sup>43</sup>	55.4	San Nicolo Gerrei <sup>45</sup>	82.7	Rusguniae	43.6
Trajan Decius			Villaubana	84.6		
Trebonianus	Martellago	55.3				
	San Martino del Pizzolano	44.0			Guelma	75.7
Aemilian			Capoterra 1 <sup>46</sup>	88.9		
Valerian/Gallienus			Capoterra 2 <sup>46</sup>	81.1		
			Galtelli <sup>47</sup>	90.6		
			Falerone <sup>48</sup>	96.6		
			Riola <sup>49</sup>	86.6		
			Rome Testaccio	92.4		
			Sant' Antonio			
			Ruinas 2 <sup>50</sup>	95.6		
			Talana <sup>51</sup>	91.4		

<sup>41</sup> Serafino Ricci, "Tesoretto imperiale romano scoperto nel territorio del comune (Besano, Varese)," *N Scaua Ant* 1917, pp. 197-8.

<sup>42</sup> Ermanno Ferrero, "Piccolo ripostiglio di monete romane imperiali de bronzo (Busca, Cuneo)," *N Scaua Ant* 1898, p. 177.

<sup>43</sup> Giuseppe Castellani, "Il ripostiglio di San Polo di Piave," *RIN* 19, 1906, pp. 11-30.



<sup>44</sup> P. Orsi, "Tesoretto di grandi bronzi imperiali (Pozzallo, Sicilia)," *NScavAnt* 1909, pp. 65–6.

<sup>45</sup> *NScavAnt* 1886, p. 140.

<sup>46</sup> Antonio Taramelli, "Due ripostigli di grandi bronzi imperiali rinvenuti in regione S. Lucia (Capoterra, Cagliari)," *NScavAnt* 1928, pp. 126–9.

<sup>47</sup> Giovanni Lilliu, "Ripostiglio di monete imperiali rinvenuto in località Sa Turrta (Galtellì, Nuoro)," *NScavAnt* 1949, pp. 286–301.

<sup>48</sup> G. Moretti, "Ripostiglio monetale rinvenuto nell'area dell'antica Falerio (Falerone, Ascoli Piceno)," *NScavAnt* 1922, pp. 59–76.

<sup>49</sup> Antonio Taramelli, "Ripostiglio di grandi bronzi imperiali rinvenuto in regione Is Benas (Riola, Cagliari)," *NScavAnt* 1932, pp. 150–5.

<sup>50</sup> *NScavAnt* 1888, 608 is the same hoard as Gavino Peratoni Satta, "Rinvenimenti di monete romane in Sardegna," *AIIN* 1 (1954), p. 83.

<sup>51</sup> Antonio Taramelli, "Ripostiglio di bronzi imperiali romani rinvenuto in regione di 'sa Sogargia' (Talana, Cagliari)," *NScavAnt* 1921, pp. 499–500 is the same hoard as "Nuovo ripostiglio di bronzi imperiali romani rinvenuto in Sardegna," *RIN* 34 (1921), pp. 219–224.

## THE WEIGHT OF THE LATE 4TH AND EARLY 5TH CENTURY NUMMUS (Æ 4)

JOHN D. MAC ISAAC

Among the problems which abound in Late Roman numismatics the question of the theoretical issue weight of the Æ 4 has not exacted any great moment, save in passing reference. This fact may be symptomatic of the overall state of our knowledge of the coinage and economy of the Empire at the turn of the 5th century, for, even though it is generally recognized that it was by the medium of the small copper coinage that the macro-economics of empire met the everyday requirements of the majority of the citizen body, and that the whole currency of this period was virtually reduced to the issue of gold and copper, the nature and purpose of these tiny fractions are still largely uninvestigated.

It was only with the labors of Messrs. Carson and Kent<sup>1</sup> that a comprehensive picture of the extent and diversity of the later copper coinage of the Romans became available, and any new hoard of this period is almost certain, even yet, to reveal a new issue or variety. That there was some basic economic sense to be made of this vast series and some connection to the legal documents of the period was the assumption of H. Adelson and G. L. Kustas in their investigations of three hoards of the middle and later 5th and of the 6th centuries.<sup>2</sup> The bulk of the coins they examined, however, were issued by eastern mints after A.D. 396.<sup>3</sup> Jacqueline Lallemand, in

<sup>1</sup> *Late Roman Bronze Coinage*, Pt. II—A.D. 346–498 (London, 1965).

<sup>2</sup> "A Bronze Hoard of the Period of Leo I," *ANSMN* 9 (1960), pp. 139–188; *A Bronze Hoard of the Period of Zeno I*, *ANSNM* 148 (1962); "A Sixth Century Hoard of Minimi from the Western Peloponnese," *ANSMN* 11 (1964), pp. 159–205.

<sup>3</sup> Of a total of 2758 legible coins, 183 are imitations, only 156 (both Æ 3 and 4) issued prior to A.D. 396, and only 96 of the total were certainly or most probably issued in the West.

her studies of the great Lierre hoard<sup>4</sup> and comparative material, identified and closely examined the two staple issues of the Western Empire for the period 383–395, *VICTORIA AVGGG* and *SALVS REIPVBLICAE*, but the hoard contained very few coins dated after 395, and still fewer coins certainly issued in the eastern Empire.<sup>5</sup>

The authors of the foregoing studies did not agree as to the issue weight of their *Æ* 4 of the period 383–396, the former opting for a value of 1.18 gm. to 396, and 1.14 gm. afterward.<sup>6</sup> Mlle. Lallemand reasoned that the statistics favored a higher value, 1.26 or 1.29 gm. for the earlier period, with the lightening occurring after the closing of the Lierre hoard, ca. 402.<sup>7</sup> Both studies are at variance with the passing judgements of Elmer<sup>8</sup> and Pearce.<sup>9</sup>

A hoard which may help to clear up the picture by providing a link both temporal and geographical between the above studied material was found at Meydum in the Fayum by the expedition of the University of Pennsylvania in 1932.<sup>10</sup> There is nothing extraordinary about this hoard, either in content or date of deposit, as several others of almost identical composition have long been known,<sup>11</sup> but chronologically it stands between the groups above: the majority of the coins were issued prior to 396 (260 are imitations, 1150 are identifiable as official issues prior to 396), but about 200

<sup>4</sup> "Lierre: bronzes de Constantin I à Arcadius-Honorius," *Etudes numismatiques* 3 (1965) pp. 49–87; "Le trésor de Lierre: Bronzes jusqu'à Arcadius-Honorius. Supplément," *Helinium* 8 (1968), pp. 22–41.

<sup>5</sup> Only 15 coins were dated after 395; 14 coins bore eastern mint marks.

<sup>6</sup> *ANSNM* 148, pp. 27–28.

<sup>7</sup> *Etudes numismatiques* 3, p. 66, note 31.

<sup>8</sup> *Verzeichnis der römischen Reichsprägungen von Augustus bis Anastasius*, 2nd ed. (Graz, 1956), p. 27—1.13 gm. after 383 generally.

<sup>9</sup> *RIC* 9 (1933), p. xxxii—1.15 gm. after Theodosius I's reform in the East (383), spreading later to the West, a reform in 396 having an unstated effect.

<sup>10</sup> The hoard, as yet unpublished, was found by Dr. Rowe, the expedition director, on January 17, 1932, in one of the rooms of a mud brick structure (probably a residence) designated A.N.S. 99. The hoard contained 2471 coins of which the Egyptian government retained 429, all official issues, Helena to Honorius. The remainder, in the custody of the University Museum, consists of 3 Greek bronzes, the bronze core of an antoninianus of Claudius II, 260 imitations and 1362 imperial *Æ* 3 and 4, Constantine I to Honorius; the balance are illegible.

<sup>11</sup> E.g. J. G. Milne "The Currency of Egypt in the Fifth Century," *NC* 1926, pp. 43–92, Hawara 2, 6 and Kom Washim.

were issued subsequent to that date. The coins of the first period are predominately eastern in origin (only 47 western mint coins of the 1150 total), but 93 of the second group are of the Rome mint,<sup>12</sup> the only significant source of coin in the West after A.D. 400.<sup>13</sup>

On the basis of a metrological study of the Volo hoard, Adelson concluded "... the picture given by 810 coins from the reign of Valentinian II to the first reign of Zeno seems to show a theoretical weight of 1.14 grams or one scruple."<sup>14</sup> Still, it was clear from his statistics that there was some unevenness in this picture: the coins issued prior to 396 were clearly heavier than that figure, and those of the emperor Marcian also seemed to exceed the one scruple weight. On the other hand, it was statistically improbable that either the coins of Theodosius II or Leo were so heavy. However, the range, as he saw it, was too slight (1.12–1.18 gm.) to excite the interest of contemporary historians or the general public, and such fluctuations "were therefore of limited economic significance."<sup>15</sup> In addition, Adelson called attention to a rescript of the Theodosian Code (XI.21.2), dated A.D. 396, which fixed the value of the solidus in terms of a set weight of bronze at a ratio of 1:1800. He linked this statement with a Novella of Valentinian III, promulgated some 51 years later (XVI), which set a margin of profit for the official moneychangers and established the value of the solidus at 7200/7000 nummi. A combination of these two edicts, founded on the

<sup>12</sup> The Meydum hoard is not unique in this regard. Among the coins commonly found in Egyptian hoards of this period are large numbers of "imitations" of the VICTORIA AVGG and SECURITAS REIPUBLICAE types (29% of the imitations compiled by Milne in *NC* 1926). The balance of these "imitations" are no doubt, post-400 products of the Rome mint whose semi-barbaric style during this period was recognized by Carson and Kent, *LRBC*, p. 43). Milne himself was coming around to this view in attributing this class to a mint at Carthage, *NC* 1926, p. 55. This shift may reflect the economic reunion of the East and West effected by Theodosius I; possibly it is the concrete reaction of the Egyptian savers to the reduced copper of the eastern empire. Then again it might mirror the new source of the copper coinage then circulating in Egypt. Within a decade of A.D. 400 the mint at Alexandria was closed and there was a significantly reduced output at Antioch (Carson and Kent, *LRBC*, pp. 99, 103); these mints had been the two most prominent sources of coin in Egypt during the previous quarter century or more.

<sup>13</sup> Carson and Kent, *LRBC*, p. 58.

<sup>14</sup> *ANSNM* 148, pp. 25–26.

<sup>15</sup> *ANSNM* 148, p. 26.

premise that neither the weight of the bronze coin nor that of the gold was altered in the intervening time, gives the theoretical weight espoused.<sup>16</sup>

On the basis of the metrological evidence of the Meydum hoard it is possible to set forth an important distinction which has not yet been realized. For convenience the following histograms express percentages of each data set, the specific values on which they are based being given below each. The issues selected are those most representative for the time period: VOT X MVLT XX (A.D. 383–388?), SALVS REIPUBLICAE (A.D. 388–393),<sup>17</sup> CONCORDIA AVG(GG) (A.D. 396–408),<sup>18</sup> and VICTORIA AVGG,<sup>19</sup> Rome mint (A.D. 410–425). Parallel graphs are based on the published weights of Lallemand's SALVS REIPUBLICAE, Rome and Aquileia (A.D. 388–395) and Adelson's Anepigraphic/Cross (A.D. 425–450).

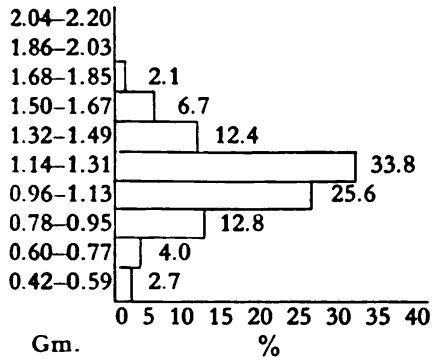
The two earlier eastern issues from the Maydum hoard are entirely congruent, favoring the range 1.14–1.31 gm. and support a theoretical weight slightly above 1.20 gm. The graph representing the contemporary western coins is slightly different, with the concentration in the 0.96–1.13 gm. range, but the sum (%) of the coins in the ranges 1.14–1.31 gm. and above matches rather closely the eastern coins, while the base statistics point to the same area for a theoretical weight. When, however, we examine CONCORDIA AVG(GG) from the Meydum hoard, we find that the concentration has fallen about two carats, indicating a theoretical weight of ca. .90 gm. The

<sup>16</sup> *ANSNM* 148, p. 27.

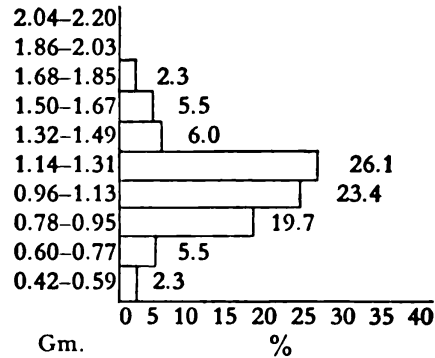
<sup>17</sup> This is the only issue where all the available coins were not employed to arrive at the statistics given. There were 523 coins of this type in the Meydum hoard; 218 were used: the Meydum hoard was formed, in part, during the last decade of the fourth century and many of the coins of this type are f.d.c., while coins of the same mint and sub-issue show light to moderate wear. Since all of the other material showed wear in varying degrees, I elected to bias the coins of this issue, selecting only those coins on which neither the mint mark nor the imperial signature was legible.

<sup>18</sup> CONCORDIA AVG (A.D. 396–402) and CONCORDIA AVGGG (A.D. 402–408) are here combined: 18 AVG, 11 AVGGG, 66 indeterminate. The lack of certainty here is due not so often to wear as to the apparent difficulty the die sinkers encountered in adjusting to the smaller module.

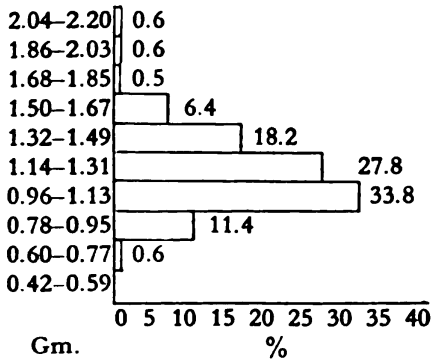
<sup>19</sup> Officina P, 10; S, 13; T, 8; E, 21; coins showing both Honorius' signature and the Rome mint mark, but officina letter uncertain, 16; stylistically assigned, 26.



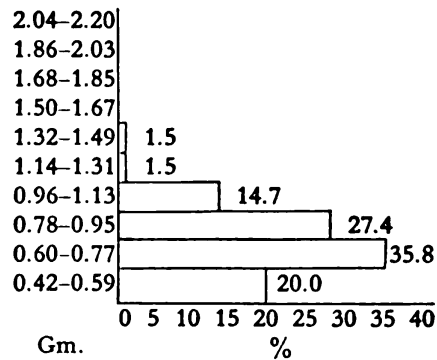
I. VOT X MVLT XX (Meydum hd., eastern mints, A.D. 383)  
N=148; M=1.15 gm.;  $\sigma$ =.25 gm.; V=22.1.



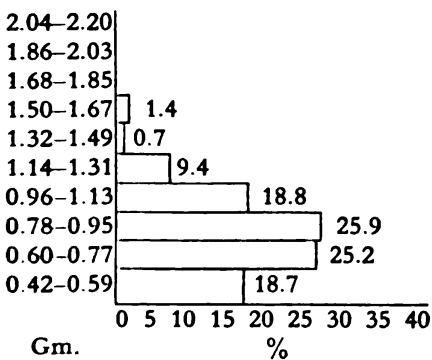
II. SALVS REIPUBLICAE (Meydum hd., eastern mints, A.D. 383-395)  
N=218; M=1.13 gm.;  $\sigma$ =.26 gm.; V=23.5.



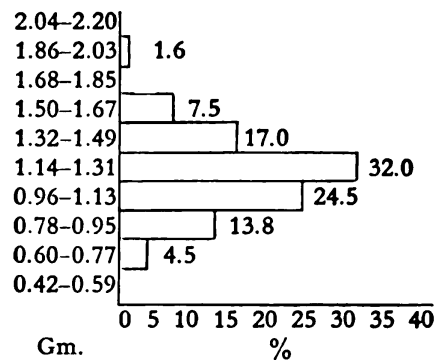
III. SALVS REIPUBLICAE (Lierre hd., Rome and Aquileia, A.D. 388-395.)  
N=462; M=1.18 gm.;  $\sigma$ =.21 gm.; V=17.8.



IV. CONCORDIA AVG(GG) (Meydum hd., eastern mints, A.D. 396-408)  
N=95; M=0.76 gm.;  $\sigma$ =.19 gm.; V=25.3.



V. Anepigraphic/Cross (Zeno hd., eastern mints, A.D. 425-450)  
N=131; M=.82 gm.;  $\sigma$ =.24 gm.; V=29.3.



VI. VICTORIA AVGG (Meydum hd., Rome, A.D. 410-423)  
N=93; M=1.16 gm.;  $\sigma$ =.23 gm.; V=19.8.

difference between this figure and that which can be derived from the data supplied by Adelson's Anepigraphic/Cross is really quite minor.<sup>20</sup> This reform is not reflected in the issue of the Rome mint, nor, it appears, do the few coins of Valentinian III in the Zeno hoard show it.<sup>21</sup> What standard Valentinian may have had in mind when he made his proclamation in A.D. 445 we can not tell from any of the hoards under discussion, but it is clear that his immediate predecessor was still coining at the old weight long after 396.

With the discovery of this geographical variance in the issue weight in hand, it is necessary to emend Adelson's calculations taking the eastern and western issues independently and recognizing that the series of eastern coins, GLORIA ROMANORUM, three and two emperors standing, was the accompanying reduced  $\text{Æ} 3$  for the cross issues, and so should not be counted among the  $\text{Æ} 4$ .<sup>22</sup> At present Adelson's computed mean weight of issue is an average between the low weight of the new  $\text{Æ} 4$  on the one hand and the heavier contemporary  $\text{Æ} 4$  of the West together with the new  $\text{Æ} 3$  on the other. Since the former class was by far the more numerous in his hoard, the failure of the coins of the period Theodosius II-Valentinian III to come up to his theoretical standard is quite understandable.

Similarly the Meydum hoard necessitates a revision of Adelson's argument, cited above, that the imperial authority might strike around a theoretical weight with impunity because the small weight fluctuations would not be apparent to the general public. The new

<sup>20</sup> Deletion of six coins, three which approach double the mean weight and three which do not come up to half, lowers the mean weight to .80 gm. with the standard deviation falling to .22 gm., almost certainly the same standard of the Meydum hoard's CONCORDIA AVG (GG) issues.

<sup>21</sup> So few specimens are or are most probably Valentinian's in the Zeno hoard that we are not really safe in deciding what state of affairs prevailed, but the mean weight of those specimens is about one carat higher than the contemporary coins of Theodosius II in the same hoard.

<sup>22</sup> The mean weight of the 114 examples of these issues in the Meydum hoard (Carson and Kent's GLORIA ROMANORUM 21, 22, 23) is 1.55 gm. Adelson and Kustas were unsure how these coins ought to be designated (*ANSMN* 9, p. 165, note 13) and assigned them to  $\text{Æ} 4$ . They were undoubtedly influenced by the fact that most extant coins of this series are cut down thereby fitting into the  $\text{Æ} 4$  class. Few of the examples in the Meydum hoard are clipped permitting their correct classification within the monetary system.

eastern Æ 4 in the Meydum hoard, in a state of fine preservation, are clearly inferior to its predecessor; the only conceivable confusion would have been between the new Æ 3 and the old Æ 4. In this last fact we may have one reason for the seemingly universal tendency during the 5th century to trim the flans of these issues. This observation may be linked with two others: the eastern empire seems to have stubbornly held to a real value<sup>23</sup> for its copper coin down to the reign of Justinian (C. Just. X.29.1) in terms of gold, despite the ravages of inflation, and the lead of the Western empire and the Vandals in adopting a purely token coinage;<sup>24</sup> the appearance of large numbers of Western mint coins in Egyptian hoards after the date of the edict. If correctly interpreted, this shift reflects a preference for such heavy weight specimens, now markedly superior in quality to the products of the eastern mints, where before the slight difference between the products of the two halves of the empire excited no interest in the populace. The sum of these observations is that this reform of the bronze was indeed significant, both

<sup>23</sup> This theory follows the older view that the fractional copper was a hard currency and not fiduciary as opposed to Adelson's position, see *ANSMN* 9, pp. 151–152 for a summary of the arguments. Grierson, "Tablettes Albertini and the Value of the Solidus in the Fifth and Sixth Centuries A.D." *JRS* 1959, p. 77 and note 25, (following Milne, *NC* 1926, pp. 61–64), states the case for the token nature of the small bronze during the fifth century. One may note the emphasis that the authors place on the imitations and non-Roman coins which circulated together with the official issues. The imitations, like the non-Roman coins, were usually of good metal, and not far off the true weight. If the coins were eventually to pass by weight, one can see that the citizen might have little objection to accepting them as official, especially if the supply of imperial products was inadequate.

<sup>24</sup> Grierson, *JRS* 1959, pp. 77–80. The casual introduction of obsolete coins with overstruck valuation reveals the token nature of both of these systems. See also D. M. Metcalf, *The Origins of the Anastasian Currency Reform* (Amsterdam, 1969), p. 12, but the conclusion that Anastasius' coins were token as well is not acceptable as the existence of large vs. small folles implies some degree of difficulty in adjusting the eastern economy to the device of the multiple. I think, rather, that the small folles represented yet another appreciation of copper at the expense of the nummus weight, carried out by the medium of the multiple since striking coins of such low weight was clearly impossible. The large folles may represent either a return to a better standard occasioned by a recovering economy or a necessity to close the gap between the multiple standard (1 nummus theoretically = .24 gm.) and the continuing issue of Æ 4 at .76 gm. theoretical weight, the lowest figure at which coins could be struck with any ease.



in the reaction it provoked and the precedent it established for the control of the Empire's coinage during the remainder of the 5th century. The contrast between the two halves of the Empire is also heightened: the West attempted economic stability by simply controlling the number of nummi to the solidus, and at the same time the East sought to regulate by bullion weight that same commodity. The split in economic tactics is probably traceable to the severe exactions on the East by the barbarians soon after the death of Theodosius I; the answer to the gold drain was a revaluation of the copper.

To settle upon specific figures for the issue weights of the nummus is to hazard a guess within limits, for the variation between East and West may have preceded the Edict of 396<sup>25</sup> and, theoretically, the figures proposed by Adelson of 1.18 gm. for the East, and 1.26 gm. by Mlle Lallemand for the West for the period preceding 396 are both possible. However, the evidence such as we have indicates that a figure between the two is probably correct. In terms of known weight units employed by the Romans in their coinage the nearest is 1.235 gm., 6½ carats, but the half carat was an adjustment presumably employed only for the gold coinage.<sup>26</sup> The answer probably is that the theoretical weight was 6½ carats, and the mint measurement the number of coins to be struck from the pound of bullion, so the nearest likely figure is 264 coins to the pound. Similarly, for the weight of the post-reform eastern coins, the statistics point to a value midway between 4½ and 5 carats (.855 gm. and .95 gm.), with 360 coins to the pound. Unfortunately, these calculations are based on the traditional weight of the Roman pound and it is evident that when another figure is preferred for that measure, all of the other values computed must change slightly. Further than this we can not properly go, and we must await more evidence from the reign of Valentinian III before this question can be put to rest.

<sup>25</sup> Pearce, *RIC* 9, pp. xviii ff., noticed the split between the coined bronze of Gratian's last years and the reformed bronze of Theodosius I in the East and saw in it a reflection of the growing disaffection of the two emperors. A similar falling out, of course, occurred between Arcadius and Honorius soon after their father's death, and the feud carried over to Theodosius II, so the divergence of the two coinages may likewise be signal. It is presumed, however, that Theodosius I restored the combined empire to a common coining standard, his own.

<sup>26</sup> *ANSNM* 148, p. 20.

## THE CYRILLIC DENIERS OF BOLESŁAV I OF POLAND

BOLESŁAW B. SZCZEŚNIAK

Boleslav I of Poland issued a series of deniers with Cyrillic letters spelling his name.<sup>1</sup> There is no written indication of where, why, or when the silver coins were minted, although some have associated them with Boleslav's expedition against Kiev in 1018.<sup>2</sup> In trying to find out the when, where and why of minting, we need first to examine the historical situation which brought Boleslav to Kiev, to discover if his presence in Kiev justified the issue of these coins. We must then consider what the inscription and the details of the royal portrait on the coins can offer as clues.

The death of Vladimir the Great, ruler of the state of Kiev, in July 1015, raised the problem of the succession to the Kievan throne. Of the twelve sons of Vladimir most often mentioned in the chronicles, four were especially involved: Sviatopolk, who immediately seized the Kievan throne, Gleb and Boris, whom Sviatopolk early defeated and killed, and Iaroslav, ruler of Novgorod. Additional difficulties arose because these sons had different mothers, and numerous other children had possible claims to the throne. Moreover, though Sviatopolk was high on the list of sons according to the chronicles, his claim to power was offset by the fact that he was Vladimir's son by a sister-in-law whose husband Vladimir had killed, though not before the wife was pregnant. The question of Sviatopolk's legitimacy was a good argument for the claims of Iaroslav, who had already opposed his father's domination.

In asserting his claims to the Kievan throne, Iaroslav waged an unsuccessful campaign against Sviatopolk in 1016, hampered partly by a rebellion of his own people. However, he soon tried again with

<sup>1</sup> V. T. Potin, *Drevnaia Rus i Evropeiskie gosudarstva v X-XIII vv.* (Leningrad, 1968), pp. 184-186, gives an account of where the deniers are now kept.

<sup>2</sup> K. Strończyński, *Dawne Monety Polskie*, Vol. 2 (Piotrków, 1884), p. 28. I. I. Tolstoi, *Drevneishie russkie monety velikogo kniazhestva kievskogo* (St. Petersburg, 1882), pp. 213-214.

more success, causing Sviatopolk to flee for aid to his father-in-law, Boleslav of Poland.<sup>3</sup> But Boleslav's interest in Kiev was not purely familial. There had been enmity between Kiev and Poland over castles in the Czerwień since Vladimir had seized them in 981. Sviatopolk's marriage to Boleslav's daughter had not eased the situation, nor had a Polish attempt to regain the territory in 1013. In addition, Boleslav was pursuing a policy of territorial aggrandizement which could not ignore the attractive center of power and lands of Kiev, the most important of the Russian principalities. The acquisition of Kiev would also aid Boleslav in his opposition to the Holy Roman Emperor, Henry II, who had vigorously opposed the honors given Boleslav by Otto III at Gniezno in 1000.<sup>4</sup> The desire to regain lost lands and to increase his power and influence in several directions was enough to cause Boleslav to aid his son-in-law and mount a successful invasion against Iaroslav at Kiev, capturing the city and putting Sviatopolk on the throne in 1018. However, relations with Sviatopolk were not easy; a rebellion ensued, and Boleslav was driven out in 1019, leaving Sviatopolk to enjoy Kiev for only a short time, since Iaroslav mounted another attack, defeating and killing his brother later the same year.

Even though his stay in Kiev was short, Boleslav's victory there was important for his political power; it seems likely that the deniers with his name in Cyrillic characters commemorated Boleslav's stay in Kiev, especially in view of his practice of producing coins to commemorate other peaks in his career.<sup>5</sup> The PRINCES POLONIE deniers were coined about 992 to celebrate the unification of the Polish provinces by Boleslav. The GNEZDVN CIVITAS deniers marked the elevation of Gniezno to an archbishopric about 1000. It

<sup>3</sup> *The Russian Primary Chronicle, Laurentian Text*, translated by S. H. Cross and O. P. Sherbowitz-Wetzor (Cambridge, Mass., 1953), pp. 93–95, 124, 130–133, provides easy access, in English, to the historical background of the struggle for the Kievan throne.

<sup>4</sup> X. W. Meysztowicz, *Koronacje pierwszych Piastów, Sacrum Poloniae Millennium*, Vol. 9 (Rome, 1962), p. 76. For Otto III's association with Boleslav in the imperial dignity, see B. Szczesniak, *The Imperial Coronation of Gniezno in A.D. 1000, Columbia University Polish Studies I* (1971).

<sup>5</sup> General discussion of the varieties of deniers issued by Boleslav I is found in Marian Gumowski, *Corpus Nummorum Poloniae*, Vol. 1 (Kraków, 1939), pp. 19ff.

was in this city, during his visit to the tomb of St. Adalbert, that Otto III placed a crown on the head of his host, Boleslav I, calling him friend and ally and giving the Polish ruler the dignity of being Otto's deputy.<sup>6</sup> Boleslav celebrated this event by issuing the INCLITVS deniers. The SCS IOANNES deniers marked the founding of a bishopric and cathedral in Wrocław in 1000. The PRAGA CIVITAS deniers announced the incorporation of Moravia and Bohemia into the Polish empire in 1003 and 1004 and the REX BOLISLAVS deniers proclaimed Boleslav's coronation as king of Poland in 1025.

However, political motivation cannot alone explain the inscriptions' Cyrillic characters and the Byzantine symbolism appearing on the coins. Both the obverse and the reverse carry the same inscription: **БОЛЕСЛАВЪ**. The obverse shows in addition the royal portrait, bearded, with miter or cap closely resembling the Byzantine *kolpak*, and mantle which is sometimes embroidered with pearls. The reverse presents the patriarchal cross of Constantinople along with the inscription. Changes in the division of the letters in the inscription and in the obverse portrait and clothing make it possible to distinguish five separate issues.<sup>7</sup>

Cyrillic letters are not what we would expect from Boleslav. None of his other deniers carry them. The Cyrillic alphabet was in use in Kiev, but not in the scattered southern communities in Poland where the Eastern rite was followed. Boleslav himself favored the Latin rite, which used the Glagolitic alphabet in Slavic areas; he made the Polish church dependent on the Pope, persecuted the followers of the Slavonic rite,<sup>8</sup> and celebrated in denier form the growing importance of Polish cities in the Roman church administration. The Cyrillic letters tie the deniers firmly to the capture of Kiev. They acknowledge the transfer to the Polish realm of Kiev's particular importance among the Russian principalities.

The Cyrillic letters raise the problem of the connections with the Byzantine church which are also implied by the portrait style and patriarchal cross on the coins. Kiev had acknowledged the Eastern

<sup>6</sup> *The Cambridge History of Poland. From the Origins to Sobieski (to 1696)* (Cambridge, 1950), p. 24.

<sup>7</sup> Gumowski, *Corpus*, pp. 43-44.

<sup>8</sup> K. Lanckorońska, Studies on the Roman-Slavonic Rite in Poland, *Orientalia Christiana Analecta*, 161 (Rome, 1961), pp. 101-104.

rite and the supremacy of the Byzantine church since the conversion of Vladimir the Great in 988. What could be more natural than the patriarchal Constantinopolitan cross on the reverse of Kievan coins? The miter and mantle of Byzantine design which Boleslav wears on the coins imply again his desire to be identified with Kiev, even at the possible expense of seeming to be tied to Constantinople. However, Boleslav managed to make his intentions in that regard more than clear when, after the capture of Kiev, he sent to Constantinople and to the Holy Roman Emperor Henry II messages declaring his own sovereignty over the principality's lands and his increased power as an independent ruler.<sup>9</sup> His supreme authority as *basileus* is expressed best by the halo visible above the miter on the Cyrillic denier in the Zamoyski Library in Warsaw.<sup>10</sup>

While Boleslav acknowledged the special place of Kiev in the Polish empire, he did not necessarily propose to circulate the Cyrillic deniers with their Byzantine connection in the parts of his realm which had no ties and some antipathy to the Byzantine church. Indeed, it seems likely that all these eastern details were for the benefit of the residents of the principality of Kiev, that the coins were meant primarily for circulation in that state. Since they have been discovered elsewhere than in Kiev<sup>11</sup> and yet have not turned up in the communities of the Slavonic rite in Poland, we may suppose that the coins were not even meant for circulation in parts of Poland which acknowledged the power of the Byzantine church, but rather that they reached areas outside of Kiev in the pockets of merchants who travelled to neighboring parts of Poland.

If we accept that the coins had special meaning and were intended for circulation in Kiev alone, it is most likely, then, that they were coined in Kiev itself. There would be little point in bringing them from Kraków, where, at least until 1000, there had been a mint producing occasional coins with Cyrillic letters,<sup>12</sup> or from anywhere

<sup>9</sup> *Thietmari Chronicon, Monumenta Germaniae Historica, Scriptores* 3 (Hanover, 1839), p. 871, ll. 13-17.

<sup>10</sup> Gumowski, *Corpus*, p. 43, no. 37.

<sup>11</sup> Ryszard Kiersnowski, *Pieniądz kruszcowy w. Polsce średniowiecznej* (Warsaw, 1960), p. 289.

<sup>12</sup> Marian Gumowski, *Handbuch der Polnischen Numismatik* (Graz, 1960), pp. 13-14.

else in Poland. In addition, the fact that these are silver, rather than gold coins, points to intended use in home rather than in foreign markets. Vladimir the Great had issued gold for foreign commerce and silver for home markets, as Kiersnowski has pointed out,<sup>13</sup> and Boleslav found it easiest to follow his example.

The coins, then, are not merely pieces commemorating the expansion of Boleslav's political hegemony or his growing ties with Rome, but are evidence of an ecclesiastical policy and notion of rulership in Kiev quite different from the ones Boleslav held to in his territories further to the west.

<sup>13</sup> Kiersnowski, *Pieniądz*, pp. 147–151.



## THE ANS HOARD OF ANTIOCH DENIERS

(PLATES XVI–XVII)

ROBERTO PESANT

In 1960 the American Numismatic Society procured, through gift and purchase, a hoard of billon deniers of the Crusader princes of Antioch. All of them are of the type that has a helmeted bust flanked by a star and a crescent on the obverse, and a large cross with a small crescent on the reverse. The hoard came in two lots: the first of 51 pieces, the second of 352. Of the total 403 coins, 390 bear the name BOAMVNDUS and are attributed to Bohemund III (1162–1201), his brother, Bohemund IV (1201–1232), and the latter's son, Bohemund V (1233–1255). The remaining 13 coins, with the inscription RVPINUS, are assigned to Raymond-Rupin (1216–1219).

All that is known concerning the hoard's provenance is that it was purchased by an intermediary in Antioch in the Spring of 1960 from a farmer who found it approximately 5 kilometers from that city. There is a slight confusion about whether the two lots in the ANS comprise the entire hoard and there is also the strong probability that the coin catalogued below as number 364 was added to the parcel after it was unearthed. These uncertainties are, however, not unlike the problems encountered with other hoards obtained under similar circumstances.

### REGULAR ISSUES IN THE NAME OF BOHEMUND

The present basis for classifying the helmeted bust coinage in the name of Bohemund is the system evolved by D. F. Allen based on his study of the Al-Mina hoard.<sup>1</sup> He divided the entire series into two broad categories which he called *Regulars* and *Irregulars*. The *Regulars* were then divided into six types, and the first type further subdivided into three varieties. The first five types are arithmetically

D. F. Allen, "Coins of Antioch, etc., from Al-Mina," *NC* 1937, pp. 200–10.



sequenced in accordance with muled dies, while the sixth type is placed at the end of the series due to considerations of date with respect to other feudal coins found in the Al-Mina hoard.

The Irregular issues were, in turn, divided into three types, the third type being subdivided into two varieties. Chronologically, Allen assigned the Irregulars to Raymond-Rupin's second tenure as Prince of Antioch, 1216–1219, arguing that Raymond-Rupin minted initially in the name of Bohemund until his hold on Antioch was secure at which time he introduced the RVPINUS issues.<sup>2</sup>

More recently, D. M. Metcalf has added to the organization of this coinage with two important contributions concerning the sequence of the series.<sup>3</sup> First, he reassigned the specimens with the bust facing to the right, which Allen had considered as pertaining to the Irregulars, to a position very early in the series; something in the nature of stylistic experiments. Secondly, he reassigned Type 5 directly after the experimental Head to Right specimens and preceding Type 1. The questionable 4/5 mule which led Allen to place Type 5 late in the sequence is effectively disputed by Metcalf on the basis of a similar "apparent" 4/5 mule which he has studied.<sup>4</sup>

In my own studies of this helmeted bust coinage, I have found that Allen's division of the Regular series into six principal types is inadequate for the scope of varieties found. I have therefore introduced additional sub-classifications in order to adhere, as closely as possible, to the original six-type format. Also, Type 2 has been assigned as a variety of Type 3 herein and is not considered as a distinct type. Allen's difference between Types 2 and 3 is mainly in the single versus the double cross bars of the letters, but if one is to be guided principally by this, then additional types might well be established throughout on the absence or presence of pellets in these

<sup>2</sup> *NC* 1937, p. 203. Allen, p. 203, note 4, includes the Head to Right issues with the Irregulars.

<sup>3</sup> D. M. Metcalf, "Billon Coinage of the Crusading Principality of Antioch," *NC* 1969, pp. 247–67. See also J. Duplessy and Metcalf, "Le trésor de Samos et la circulation monétaire en Orient Latin aux XII<sup>e</sup> et XIII<sup>e</sup> siècles," *RBN* 1962, pp. 107–207; Metcalf, "The Mağaracik Hoard of 'Helmet' Coins of Bohemund III of Antioch," *ANSMN* 16 (1970), pp. 95–109; and Metcalf, "Coins of Lucca, Valence, and Antioch," *HBN* 1969 (in press).

<sup>4</sup> *NC* 1969, p. 257; cf. p. 266, no. 39.

same inscriptional cross bars. Metcalf also notes the various positions of the crescent relative to the helmet as well as the size, style and configuration of the crescents to differentiate Types 2, 3 and 4. However these distinctions are vague at times with the exceptions frequently threatening to outnumber those appearing to conform.<sup>5</sup> It must also be noted that these "characteristic" details turn up in other types as well; the fine horned crescent appears in the experimental issues, and the shallow one is quite common throughout the Regular series. Taken together, Type 3, with its variety Type 2, comprises a homogenous group distinguished by the presence of a between the I and O of the reverse legend.

Type 6, the last of the Regular series according to Allen's classification, should perhaps also be reconsidered. It is attributed by Allen to Bohemund V, which is undoubtedly correct but it is questionable whether the coins were actually produced in Antioch.

Evidence of the later date of issue of Type 6 has been provided by Allen<sup>6</sup> and supported by Metcalf. A careful study of a number of Type 6 specimens leads me to conclude that there is absolutely no feeling or sense of kinship between this type and the other preceding ones. Even with the abrupt change of technique and workmanship which occurs when the Raymond-Rupins and the Irregulars interrupt the Regular series, there still remains the impression that both series are stylistically related to each other. This is not the case for Type 6 relative to the preceding Types. At first, one is aware of slight differences which become more meaningful when scrutinized more closely. The style of the bust and the letter forms are not similar; however, it is not only in the components, but rather in the whole concept—everything seems to indicate another source. This series may well have been executed, under contract, by one of the Italian maritime republics. An investigation of punches and designs would have to be made comparing them to other contemporary coins of Italian origin in order to develop this observation.

<sup>5</sup> A review of Metcalf's catalogue in *ANSMN* 16, pp. 107-8 discloses the difficulty of advancing these distinctions while also describing what is actually on the coins.

<sup>6</sup> *NC* 1937, p. 202. The Al-Mina hoard, dated to the early years of Bohemund V, contained 15 specimens of Type 6, all in fresh condition.

## ISSUES OF RAYMOND-RUPIN AND THE IRREGULARS

It has been generally accepted that the deniers of Raymond-Rupin were issued during his second tenure as Prince of Antioch, 1216-19.<sup>7</sup> Allen has suggested that the Irregular issues may have been struck at an unofficial mint for Raymond-Rupin before he felt himself strong enough to issue coinage in his own name. It is, however, rather difficult to accept the possibility that Raymond-Rupin would have struck coinage in his rival's name. Apart from the enmity, the fact remains that once Raymond-Rupin had been restored, there would not have been the need to placate the populace nor those in more powerful positions who had remained loyal to Bohemund IV. Rather, it may well have had the opposite effect by unintentionally implying an insecure or a temporary condition.

Although Raymond-Rupin's coinage is undoubtedly Antiochene, the workmanship and general appearance of the coins is sufficiently dissimilar from that of Type 4 to indicate sweeping changes in the mint personnel. The Irregular series, as has been pointed out by Allen, is quite similar to the Raymond-Rupin issues which strongly suggests that the Irregular coinage of Bohemund is directly subsequent to the coinage of Raymond-Rupin. After Raymond-Rupin fled Antioch in 1219 it is understandable to think of Bohemund continuing to have new coinage struck in his own name with the contemporary Antiochene personnel. Admittedly, this situation could have happened in reverse, three years previously when Raymond-Rupin entered Antioch, but then, when he lost, the same abrupt change in personnel and equipment would have had to happen again so as to justify the Bohemund coinage similar to the previous Regular issue.

The coinage of Raymond-Rupin has not been classified before. Lambros<sup>8</sup> provided an illustration and a brief description for each of the seven specimens in his collection. Allen listed three pieces and described them fully without attempting to classify them.



In the following Table, I have arranged these coins into four types, each of which is subdivided into three varieties. Concerning

<sup>7</sup> P. Z. Bedoukian, "A Unique Billon of Levon I of Cilician Armenia and its Historical Significance," *NC* 1967, pp. 189-97, discusses the events in detail.

<sup>8</sup> Paul Lambros, *Mélanges de num.* I (1874-75), pp. 359-68.

the sequence, the type having the ornamental annulets between the letters in the obverse legend has been placed first based on a rather tenuous thought: Type 3 of the Regulars supposedly being more plentiful may have been more readily available for copying by the assumed new mint personnel. The subsequent varieties are derived stylistically as indicated in the Table.

The oddity of the "chin guard" on the bust may be no more than a clumsy execution of the coif which unintentionally gives the impression of a different variety. On the other hand, the seriffed nasal appears to be a deliberate feature created by the die cutter.

The chin guard effect is carried into the Irregular series together with other oddities such as the seriffed nasal. The design of the eye has been rendered as either  (pellet and slash) or  (pellet and box) to cover basically the many awkward attempts to portray either the pellet and crescent or the pellet in the annulet of the Regular series. This too is carried into the Irregulars.

It has not been possible to reconcile the varieties found in this hoard with Allen's three types, 1\*, 2\* and 3\*. I have added another variety to his Type 3\* (Lambros 9 and 2); and introduced Type 4\* the distinctive feature of which is that the crescents of the chain mail point upward as in the case of the Regular issues.

## CATALOGUE

The coins illustrated are denoted by an asterisk.

### *Regular Issues in the Name of Bohemund*

#### HEAD TO RIGHT

- \*1. **✠BOHIIVHDVS ✠HTIOCHIA**  
Chain mail of annulets—the earliest variety of this type. Although weakly struck, the piece is neatly executed. .95 gm.
- \*2. Chain mail of blunt, thick strokes; the workmanship appears neat. *Rev.* with **H**. The crescent is in the first quarter, pointing downward. .88 gm.

- \*3. Chain mail of strong horizontal slashes on the neck and smaller ones following the outline of the jaw. The workmanship shows the same neat appearance as the preceding two. *Obv.* same die as Ras Shamra 1. .89 gm.

## TYPE 5

- \*4-16. **✠BOHMVNVS ✠HMTIOCHIH**  
Variously **H** for **M** on *obv.* and *rev.* Letters sometimes **N**, **M**, **H**. Wt. .78-1.08 gm., mean .96 gm.
- \*17. *Obv.* legend blundered, **✠BOHMVINVS** Die recut. .98 gm.

## Variety 5a

- \*18. *Obv.* legend blundered, **✠BOHMVNVS** .90 gm.  
19-20. As 18 but **CH** .87, .58 gm. (clipped).

The blundered legend of 17 is the result of a clumsy error which occurred when the die was reworked. On the other hand, the legends of *Variety 5a* can only be regarded as a deliberate misspelling of the name.

## MULE 5/1

## Variety 5/1

- \*21. *Obv.* eye rendered **o** and with **H** *Rev.* with **H** and **C** .84 gm.
- \*22. *Rev.* with **C** as the Head to Right type. The letters on the obverse are cruder than usual. 1.07 gm.
- 23-25. Typical specimens. .91, .93, 1.05 gm.

## Variety 1/5

- \*26. *Rev.* T with elongated bar as on the Head to Right type. Note that the right arm of the cross is as a cross patonce, a feature found quite consistently on the later varieties of the preceding coinage at Antioch—the “Bare Head” bust type. No doubt we have here an indication that punches were carried over. .99 gm.
27. Typical specimen with **C** .85 gm.

## TYPE I

The organization of this section is based on Allen's system, emended where necessary, rather than the classification scheme suggested by Metcalf in *ANSMN* 16. The specimens grouped under 1a are among the most pleasing and best proportioned in the entire series. Variety 1c has a close stylistic affinity with 1a; it is only with 1b that one finds some very coarse pieces. Therefore the sequence has been revised to 1a, 1c, 1b notwithstanding a strong similarity to the type 5 bust in some of the 1b varieties. Varieties 1d and 1e have been added to distinguish the issues with **!** and **♥** respectively.

*Variety 1a***\*28.    ⌘BOHHVNDVS ⌘HHHTIOCHH**

Note the simple elegance of the bust and its components, and the well-proportioned lettering. .92 gm.

29-33. Typical specimens. Wt. .80-.99 gm., mean .93 gm.

*Variety 1a(1)*

**\*34.** Similar to 1a except *rev.* **!•H** 1.04 gm.

35. Similar to no. 34. .96 gm.

*Variety 1c*

**\*36.** Typical specimen with *rev.* **⌘** and a pellet on either side of the initial cross. .94 gm.

37-42. Typical specimens. Wt. .87-1.02 gm., mean .95 gm.

*Variety 1c(1)*

43-44. Typical specimens except *rev.* pellet to r. only of the initial cross. .91, 1.11 gm.

*Variety 1c(2)*

**\*45.** Typical specimen except *rev.* pellet to l. only of the initial cross. Note that the bust has begun to be rendered less graceful, and the neck is longer and thicker. .87 gm.

46-48. Typical specimens. Wt. .82-.97 gm., mean .90 gm.

*Variety 1b*

The principal criterion for this variety is the use of **⌚** instead of **⌚**. However, there is, within this group, a marked difference in the portrayal of the bust despite the multiplicity of dies. The bust varies from a close resemblance to that of the other varieties within type 1, and its antecedent type 5, to a totally new rendition with a long ungainly neck and a disproportionately small head. It is in this last case that in some instances the coins have a coarse air. Allen's classification therefore has been here further refined to record the order of development of this transition. In the obv. inscription, variously **S** or **S**.

*Variety 1b***\*49.      ✠BOHNVHVS ✠HTIO⌚HIF**

The bust is well proportioned and neck flares out. Note similarity with the bust of the other type 1 coins.  
.95 gm.

50-59. Typical specimens. Wt. .79-1.08 gm., mean .94 gm.

*Variety 1b(1)*

**\*60.** Similar to the foregoing except *obv.* **★** and **⊙** for **⊙** in obv. and rev. legends. .92 gm.

**61.** Typical specimen. .90 gm.

*Variety 1b(2)*

**\*62.** The bust is executed with a long neck and a smaller head. 1.04 gm.

**63-\*119.** Typical examples. Occasionally the eye is rendered **☉** rather than **⊙**. Wt. .78-1.13 gm., mean .94 gm. No. 119 is a good example of the long-necked variety with the clumsy execution of bust and inscriptions. .86 gm.

The next two varieties, 1d and 1e, are of great importance in determining the position of type 3 directly following type 1. Variety 1d includes coins with the precursory symbol **I**, 1e the coins with a triad of annulets, **☉**. Each symbol occupies the identical position in the reverse legend, between the I and the O. Once arrived at,

the ♥ carries over into type 3 and its position in the reverse legend remains constant throughout the use of the triad of annulets.

*Variety 1d*

\*120. **✠BOHHVHDVS ✠HHTIIOOCHIH**

Bust similar to 1b(1) with flared out neck and well-proportioned head. Obv. and rev. crescents almost inscribe a circle O .88 gm.

121-123. Typical specimens, similar to the foregoing. Wt. .98-.99 gm., mean .98 gm.

*Variety 1e*

\*124. **✠BOHHVHDVS ✠HHTI♥OCHIH**

Bust very similar to 1d and 1b(1). .91 gm. with the flared out neck and well-proportioned head.

125. Typical specimens, similar to the foregoing. Wt. .79-.89 gm., mean .85.

*Hybrid 1b(1)/1e*

\*130. Obv. with ★; rev. with ♥ 1.02 gm. This die combination is further confirmation that these varieties are quite contemporary.

MULE 1/2

\*131. Typical specimen. 1.00 gm.

TYPE 3

The outstanding thing about this the most numerous type in the hoard is the consistent similarity in the design of the pieces.

\*132. **✠BOHHVHDVS ✠HHTI♥OCHIH**

Typical specimen. .98 gm.

133. Similar except *obv.* II for H and H. .98 gm.

134-327. Typical specimens. Various slight differences in the modelling of the bust and in the rendering of the inscriptions—all reflective of die cutters' whims. Wt. .68-1.20 gm., mean .94 gm. (with few exceptions the wts. are clustered fairly close to the mean.)



*Hybrid 3/Variety Type 2*

\*328. *Obv.* with **H**. .97 gm.

*Variety Type 2*

\*329. **†BOHHVHDVS †HHTI●●CIHH**

Note the large nasal guard and other details as described by Metcalf, *ANSMN* 16, p. 101. .97 gm.

330–340. Typical specimens. Some of the letters in the inscriptions are very wide-stemmed and appear clumsy. The pellets in the cross bars are generally large. Wt. .78–1.04 gm., mean .94 gm.

*Variety Type 2a*

\*341. Both legends are blundered, *obv.* **†BOHHVCHVS**  
*rev.* **†HHTI●●CIHH** .99 gm.

*Variety Type 2b*

342. *Obv.* as 341 (different die); *rev.* typical. 1.04 gm.

343. As 328. .98 gm.

344. As 328 except *obv.* **†BOHHVHDVS** 1.09 gm.

## TYPE 4

\*345. **†BOHHVNDVS †HNTIOCIHH**

Typical specimen. .95 gm.

346–363. Typical specimens. Slight variations in the ornaments and cross bars of the letters. Wt. .85–1.04 gm., mean .94 gm.

## TYPE 6

\*364. **†BOHMYNDVS †HMTIOCNHH**

Typical specimen. .56 gm. Probably an intrusion.

*Raymond Rupin*

See Table, p. 85 for a conspectus of the varieties delineated for Raymond Rupin.

## TYPE 1

*Variety 1a*

- \*365. Annulets variously •, :, ‡ between obv. letters at random.  
.72 gm.
366. Typical specimen. 1.00 gm.

*Variety 1b*

- \*367. Note correct spelling of **RVPINVS** with **N**. .84 gm.

## TYPE 2

*Variety 2a*

- \*368. As 365 but pellets for annulets. .91 gm.

*Variety 2b*

- \*369. Rev. pellets •**H**• .91 gm.

*Variety 2c*

- \*370. Typical specimen. .86 gm.

## TYPE 3

*Variety 3a*

- \*371. Typical specimen. .88 gm.
372. Typical specimen. .91 gm.

*Variety 3b*

- \*373. Typical specimen. .91 gm.

*Variety 3c*

- \*374. Rev. pellets **H•IT•I** .94 gm.

## TYPE 4

*Variety 4a*

- \*375. Typical specimen. .72 gm.
376. Rev. pellet **IH** .97 gm.

*Variety 4b*

- \*377. Typical specimen. .85 gm.

*Irregular Issues in the Name of Bohemund*

## TYPE I\*

- \*378. **✠BOHHVNÐVS ✠HHTIVΘCIIIH**  
As Allen except *obv.* with five-pointed star and *rev.* with **HH** .86 gm.
379. Similar to foregoing. .75 gm.

## MULE I\*/3\*

- \*380. *Obv.* as 378, 9; *rev.* as "Lambros 9." .78 gm.

## MULE 2\*/I\*

- \*381. As Allen except *obv.* with six-pointed star. .92 gm.

## TYPE 3\*

*Variety 3\* "Lambros 9"*

- \*382-392. Typical specimens. Wt. .76-1.06 gm., mean .87 gm.

*Variety 3\* "Lambros 2"*

- \*393-397. **✠BOHHIIVÐVS ✠HHTIVΘCIIIH**  
Typical specimens. Various **H** or **HH** in *obv.* and *rev.* inscriptions. Wt. .76-1.05 gm., mean .88 gm.

Both "Lambros" varieties have the bust with the "chin guard" effect, although the busts themselves vary in proportions and workmanship. The letters of the legends are surprisingly consistent despite their crudity.



*Variety 3\*a*

- \*398. **✠BOHHIIVÐVS ✠HHTIVΘCIIIH**  
Note **H** in *obv.* and *rev.* and **C** in *rev.* .98 gm.

## TYPE 4\*

- \*399. *Obv.* Bust rendered in a simple, crude manner reminiscent of the early issues. The neck flares out and, contrary to the other Irregulars, the crescents of the mail point upward. The eye is a pellet with a small crescent (☪); *rev.* cross flares out. Note how the "S" is similar in style to the one used on the Regular series. .84 gm.
- 400-403. Typical specimens. Slight variations in the N cross bars. Wt. .72-.93 gm., mean .82 gm.

TABLE OF RAYMOND RUPIN TYPES

Type	Legends	Letter Types				Orna-ments in Obverse Legend		Eye Varia-tions		Chin Guard Varia-tions	
		Н	Н	Є	Є	o	•	o	o		
1a	RVPIVΣ HMT·IOCHH	×		×		×		×		×	
1b	RVPINVΣ HMTIOCHH		×	×		×		×		×	
1c	RVPINVΣ HNTIOCHH ♥ in front of bust		×	×		×		×			×
2a	RVPINVΣ HMTIOCHH		×	×			×	×		×	
2b	RVPINVΣ HMTIOCH	×		×			×	×		×	
2c	RVPINVΣ HNTIOCHH		×	×		×		×			×
3a	RVPINVΣ HMTIOCHH		×	×			×		×		×
3b	RVPINVIS HMTIOCHH		×	×			×		×		×
3c	RVPINVΣ H·IT·IOCHH		×	×			×		×		×
4a	RVPINVΣ HMTIOCHH		×		×		×		×		×
4b	RVPINVΣ HMTIOCHH		×		×		×		×		×
4c	RVPINVΣ H·ITIOCHH		×		×		×		×		×



## A HOARD OF BILLON OF FERNANDO IV

(PLATES XX–XXII)

D. M. METCALF

The coinages of the Five Kingdoms of mediaeval Spain exhibit many of the same features as those of feudal France and Italy. In the twelfth century varied local issues of debased billon coins, deriving ultimately from the Carolingian denarius, were in use. The thirteenth century saw the political expansion of the reunited kingdom of Castile and Leon, with a corresponding standardization of the Castilian coinage; monetary affairs grew in complexity, and eventually in the fourteenth century larger denominations in silver were introduced. The numismatic history of Christian Spain has been fully described by Heiss, in three volumes published in 1865–9.<sup>1</sup> These are still a standard work of reference, although a good deal of new information has come to light in the intervening hundred years.<sup>2</sup> Some interesting studies of monetary history have also been written;<sup>3</sup> but the links that have been established between numismatic history and monetary history remain very elementary.<sup>4</sup> Spain is rich in mediaeval documents, and there are many technical references to the coinage, particularly in the thirteenth century. A more detailed knowledge of the coins themselves is required, however, before they can be properly correlated with the documentary sources. The attributions of particular types will rest, in the last resort, on the pattern of their occurrence in the hoards.

Thus, Heiss attributed to Fernando III (1230–52) the billon coins reading F.REX CASTELLE / ET LEGIONIS (Fig. 1b), and to Fer-

<sup>1</sup> A. Heiss, *Descripcion general de las monedas hispano-cristianas desde la invasion de los Arabes*, 3 vol. (Madrid, 1865–9, repr., Zaragoza, 1962).

<sup>2</sup> See F. Mateu y Llopi, *Bibliografia de la historia monetaria de España* (Madrid, 1958).

<sup>3</sup> See P. Grierson, *Bibliographie numismatique* (Brussels, 1966), pp. 113–4.

<sup>4</sup> The evidence provided by coinage in a wider context may be studied in H. Livermore, *A History of Spain*, 2nd. edition (1966), and J. Vicens Vives, *An Economic History of Spain*, new edition revised by J. Nadal Oller (Princeton, 1969).

nando IV (1295-1312) those with no royal name inscribed simply MONETA CASTELLE / ET LEGIONIS (Fig. 1a). Both attributions



FIG. 1

have subsequently been challenged, and in a number of scattered articles opinion has oscillated between Fernando III and IV for the type signed F.REX. These coins present an intriguing numismatic problem, since arguments have been advanced on either side, and until recently, it has been difficult to decide between them. Moreover, there are a dozen relevant hoards which surely ought to reveal the correct answer, but which have not done so in a way to command general acceptance. If the links between numismatic and monetary history are to be strengthened, the hoards will have to be published in greater detail, to include aspects of their evidence over and above those which determine the correct attribution of particular types to one or another ruler. The hoard presented here as a contribution to that program consists almost exclusively of the F.REX coins, and the view will be taken that they belong to Fernando IV.

The main elements in the problem of their attribution as evidenced by earlier studies are:

(1) the place occupied by these two types among the various issues that are known for the thirteenth and early fourteenth centuries; (2) the structure of the hoards (including the negative evidence of the absence of certain types); (3) extensive and complicated documentary references to the dates of new issues of billon coinage and their relative valuation; (4) the existence of coins very similar in design to Fig. 1b but signed ALF.REX or E.REX. These have been presumed on typological grounds to be close in date to the coins with F.REX, and have been assigned to Alfonso X, 1252-84 and to Enrique, 1252-5, *ergo* the F.REX coins belong to Fernando III, 1230-52, rather than Fernando IV, 1295-1312; (5) the

grant of minting rights to the city of Lorca, early in the reign of Fernando IV, has been used in conjunction with other documentary sources as evidence for an attribution of the F.REX coins to Fernando III.

The writers who have expressed an opinion on the attribution in the hundred years since Heiss wrote may be mentioned together with a brief comment on the present relevance of their arguments.

(A) Chaves, 1917. A detailed stylistic and metrological study of 204 specimens drawn from various collections (i.e., not a hoard).<sup>5</sup> Chaves discusses the issues of each mint in turn, and adds Coruña and Córdoba(?) to those listed by Heiss. He interprets the mint marks as follows: T, Toledo; B, Burgos; a bowl (cuenca) with or without a foot, Cuenca; S, probably Seville; C, probably Córdoba; and three dots (...) perhaps Leon. The coins of Coruña are marked with a scallop-shell (i.e., a pilgrim's badge), referring no doubt to the route to which Coruña gave access leading to Santiago de Compostela. The coins of Coruña and Córdoba(?) are scarce. Chaves also approaches the question of the internal chronology of the issues at each mint, generally along the lines that the variety with F.REGIS is early; the more elegant dies are early; and the varieties with a lower average weight are late. Metrological conclusions based on coins drawn from different sources are, unfortunately, subject to margins of error due to varying amounts of wear.<sup>6</sup>

(B) Beltrán, 1934. On the basis of the hoards of Burgos, Fuentidueña, Palacios de Galiana, Guadalajara, San Martín, and Gallur, Beltrán argues that the coins in question must belong to Fernando IV. The anonymous MONETA CASTELLE type is given to Alfonso X, 1252–84.<sup>7</sup> The list of hoards can now be considerably

<sup>5</sup> M. Chaves y Jiménez, "Doscientas cuatro monedas de Fernando III," *Asociación Española para el progreso de las ciencias, Congreso de Sevilla*, Vol. VIII, Sección 6a, *Ciencias históricas, filosóficas y filológicas* (1917), pp. 295–348.

<sup>6</sup> Empirical evidence for this is discussed in D. M. Metcalf, "The Pylia Hoard: Deniers Tournois of Frankish Greece," *ANSMN* 17 (1971), pp. 173–227, and "A Hoard of Sienese Denari from the Period ca. 1180–1230," *NC* 1971, pp. 261–5.

<sup>7</sup> P. Beltrán Villagrasa, "La gran dobla de Fernando el Santo, Estudio numismático," *Anuario del cuerpo facultativo de archiveros, bibliotecarios, y arqueólogos* (1934), pp. 129–46.



extended, and altogether they point more clearly to the conclusion reached by Beltrán (see below). Several of the hoards contain just a few of the anonymous type, together with large numbers of another issue, in a way that would normally suggest that the anonymous coins were strays left over from an earlier period, at the dates when the hoards were concealed. But there is still apparently no hoard in which the anonymous coins are the current and predominant issue.

(C) Mateu, 1946. In his handbook on the coinage of Spain, Mateu follows Beltrán on the attribution of both the types in question.<sup>8</sup>

(D) Osaba, 1954. A usefully detailed record of three hoards (Briviesca, Muñó, and Ordejón de Abajo), referring back to the publications of Monteverde, and in which the attributions of Heiss are followed, although Beltrán's work is noted.<sup>9</sup>

(E) Gil Farrés, 1956. The hoard evidence examined by Beltrán is reviewed and is judged to be inconclusive. The evidence of epigraphy and typology is preferred, and these point to Fernando III. Gil Farrés establishes the sequence of letter forms in detail, and gives weight also to the parallel issues signed ALF.REX and E.REX.<sup>10</sup> His case certainly deserved consideration, on the hoard evidence he considered, but it is increasingly difficult to sustain on the fuller information that is now available. Secondly, it was always a difficulty that the ALF.REX and E.REX coins had not turned up alongside those signed F.REX in the hoards, if in fact they were of very much the same date. This objection might not be serious if both the ALF.REX and the E.REX coins were very scarce, having originally been issued only in small quantities. But a hoard has now been discovered which contains more than a hundred of the ALF.REX issue—with none of F.REX. As regards the epigraphical evidence, it is in principle over-ridden by that of the hoards, and can be seen in retrospect to be

<sup>8</sup> F. Mateu y Llopis, *La moneda española* (Barcelona, 1946), p. 174. Mateu gives a concise but comprehensive sketch of the various coinages of the thirteenth century, based on his own studies.

<sup>9</sup> B. Osaba y Ruiz de Erenchun, "Tres tesorillos medievales: Briviesca, Muñó, Ordejón de Abajo (Burgos)," *NH* 1954, pp. 87–97.

<sup>10</sup> O. Gil Farrés, "En torno del privilegio de Lorca," *NH* 1956, pp. 263–79.

somewhat ambivalent. Thus it is salutary to note that the evidence of both epigraphy and typology, which seemed convincing, was misleading.

(F) Gil Farrés, 1959. In his handbook on the coinage of Spain, Gil Farrés repeats the attributions he had proposed in 1956, namely of the F.REX coinage to Fernando III and of the anonymous coinage to Alfonso X.<sup>11</sup>

(G) Bouza Brey, 1961. On the basis of the Penaturmil hoard, and following Gil Farrés, Bouza Brey gives the F.REX coins to Fernando III,<sup>12</sup> thus:

Fernando III, 75; Anonymous (Alfonso X), 2; Sancho IV, 5. It would seem more natural, however, to regard the types present in small numbers as strays surviving from earlier issues, thus:

Anonymous (Alfonso X), 2; Sancho IV, 5; Fernando IV, 75.

(H) Beltrán, 1964. A very valuable new survey of the evidence. Beltrán's patient interest in the problem was rewarded after 36 years by the discovery of a new hoard which confirmed the implications of the Las Casas find of 1927. Together they allow Beltrán to interpret the ALF.REX coins as a substantive issue of Alfonso X, which circulated alongside a type that Heiss attributed to Alfonso the Battler (d. 1134). There are numerous distinct varieties of these, and Beltrán concludes that they are issues of an "immobilized type" (such as are more familiar in French feudal coinage) which were still being struck in the middle of the thirteenth century. Thus they fill a gap which had long been a puzzle to Spanish numismatists. This fundamental revision considerably clarifies our understanding of the Castilian coinage of the first half of the thirteenth century, and the documentary references to it.<sup>13</sup>

As an aside (in the caption to a line drawing in the text of his article), Beltrán summarizes his views on the mints of the F.REX coinage, and these throw-away lines are the most authoritative

<sup>11</sup> O. Gil Farrés, *Historia de la moneda española* (Madrid, 1959), pp. 203-4, 207.

<sup>12</sup> F. Bouza Brey y Trillo, "El tesorillo medieval de Penaturmil," *Boletín del Instituto de estudios Asturianos* (1961), pp. 543-54.

<sup>13</sup> P. Beltrán Villagrasa, "Dos tesorillos de vellones ocultos en la primera época del reinado de Alfonso X," *Numisma* XIV/68 (1964), pp. 55-79; XIV/69 (1964), pp. 7-20.

statement that is available on the topic. He dates the variant reading F.REGIS to 1295–6 at Burgos, and lists the following additional marks for the main coinage: A(?), Avila(?); dagger, Lorca; LO (from a coin in the possession of Juan Caballero), “more probably Lorca than Logroño, for reasons that belong elsewhere.” He prefers to leave the attribution of the three-dot coins (...) uncertain. (Tentatively, the attribution to Leon is questioned below, on the evidence of the proportions of the variety in several hoards).

(I) Collantes Vidal, 1971. The author returns once more to an attribution to Fernando III, on the evidence of the hoard of Melgar de Fernamental, 1955, and in particular the presence in it of coins attributed by Heiss to Alfonso IX of Leon (1188–1230), i.e. roughly contemporary with Fernando III. As the hoard was concealed after 1368, however, one cannot take this argument as conclusive. On the contrary, perhaps one should reconsider the dating of the coins given to Alfonso, Heiss pl. 3, nos. 8 and 11.<sup>14</sup>

To these various views we may now add that the hoard of 1969 published here is useful in establishing the attribution of the F.REX coins to Fernando IV, because it definitely contained one coin of Sancho IV, 1284–95, looking a little rubbed, along with hundreds of the F.REX issue in very fresh condition. It therefore appears that the latter are later than the time of Sancho IV, and if so they must belong to Fernando IV. The hoard also includes two specimens with the mint signature LO.

Questions of internal chronology remain difficult, but an attempt has been made, on the basis of Chaves’s work, to redefine the stylistic varieties in such a way as to correspond with the phases of output of the mints, and in any case to record the contents of the hoard in sufficient detail to allow comparisons of the proportions of different stylistic varieties when future discoveries are made.

The relevant hoards are tabulated below; attention is drawn to the proportions of the different types within many of these hoards. In the Gallur hoard, for example, the anonymous MONETA CASTELLE

<sup>14</sup> E. Collantes Vidal, “Dineros de vellón de Fernando III (1230–1252),” *Acta Numismatica* (Barcelona) I (1971), pp. 129–38. Not available at the time of writing: T. Maza Solano, “Nuevos datos para el estudio de las monedas de Leon y Castilla,” *Anales de la Asociación Española para el progreso de las ciencias* 1940, pp. 448–53.

coins occurred in the ratio of only 6 or 8 among a thousand of Alfonso X; they are therefore presumably earlier.

HOARD	Fernando III, 1230-52 or earlier	MONETA CASTELLE (Alfonso X)	Alfonso X, 1252-84	Sancho IV, 1284-95	F.REX (Fernando IV, 1295-1312)	Alfonso XI, 1312-50	Pedro I, 1350-69 or later
Gallur		6-8	1000				
Sur de España, 1963	856		110				
Las Casas (Soria)	209		3				
San Martín	2	25	1	58	227		
Penaturmil		2		5	75		
Hoard of 1969				1	538		
New Castile			2	4		6	
Briviesca		7		63	27	99	14
Burgos				34	56	90	11
Fuentidueña				×	×	×	×
Muñó		30		152		5	5
Guadalajara		6		120	77	267	many
Ordejón de Abajo		25		35	45	75	many
Palacios de Galiana				×	1	×	×
Quintanilla			×	×	×	×	×

Nevertheless, some of them remained in circulation for over a century, for they are found in hoards concealed during the reigns of Juan I or even Enrique III. Gallur is, unfortunately, the only hoard of an essentially earlier date which includes the anonymous type but stops short of the F.REX issue. The age structure of the Muñó hoard is apparently not straightforward.

The hoard which is described here consisted of some 644 billon *novenes* of Fernando IV. It came to light in a secondhand or

antique shop in Madrid. A choice of 166 specimens was made from it in two stages, and these were intended to be a comprehensive selection which should include all the coins that were noticed as being in any way unusual either in terms of their mint mark or style, plus most of the coins in particularly fine condition (i.e., well struck, for a large part of the hoard, though not all of it, consisted of coins that showed no sign of wear. The coins marked S—for Seville—seemed to include more worn specimens than the groups from other mints, but this is merely a subjective impression.) At a later stage again, the remainder of the hoard, comprising roughly five hundred coins, was purchased. Just over a hundred coins were sold without the writer's having seen them, but the rest, totalling 539, were very kindly lent by the owner for purposes of research before dispersal. There was one, and only one, coin not of Fernando IV in the hoard, namely a *cornado* of Sancho IV. The purchaser was emphatic that it was lying unnoticed among all the rest; and there were no other mediaeval coins in the shop. Its patina matches the attractive olive-green color of the majority of the coins, and there is, in short, absolutely no reason to doubt that it was associated in the hoard. This coin, and a small selection of those of Fernando IV, have since been acquired by the Ashmolean Museum, Oxford.

The composition of the hoard may be summarized as follows:

<i>Mint mark</i>	<i>Studied</i>	<i>Not seen</i>	<i>Total</i>
T (Toledo)	193	30	223
B (Burgos)	122	30*	152*
... (Leon?)	84	10	94
Bowl (Cuenca)	75	20	95
S (Seville)	24	15	39
C (Córdoba)	8	*	8*
LO (Lorca?)	2		2
uncertain	30		30
Sancho IV	1		1
	539	105	644

\* The owner's recollection was imperfect whether the 105 had included 30 marked B, or 20 marked B and 10 marked C.

The most obvious formal difference of style among the coins is in the architectural detail of the castle. For each mint, the style of the castle is consistent, in the sense that there may be two or three varieties or related patterns employed at one mint; that these few variations will account for all or virtually all of the coins with that mint mark; and that certain quite distinctive patterns are restricted to certain mints. For example, Fig. 2 shows four standard patterns, each of which occurs, with small gradations and variations, on dozens or scores of coins with the same mint mark that obviously belong together as stylistic groups. Fig. 2 also shows a completely unrelated pattern (at the right), that occurs on only one coin in the whole hoard. The mint mark is T, but the relationship of this coin to the "normal" issues of Toledo is, obviously, problematic.

For each of the larger groups, an attempt will be made to analyze the gradations of style, and to see how they relate to the style of the



FIG. 2

lion on the reverse, to the letter forms, to differences in the legends, and to the metrology of the coins. Some of the issues from the Burgos mint, for example, (and Beltrán interprets them as early) read F.REGIS instead of F.REX CASTELLE; and there are minor variations in the stops, such as ET:LEGIONIS or ET!LEGIONIS.

#### MINT MARK T (*Toledo*)



FIG. 3

The coins are fairly evenly divided between those that have three turrets on the side towers, and those with only two. The latter are,

on average, of less careful workmanship, and there is a metrological difference between the 3- and 2-turret varieties, indicating that the flans for the 3-turret coins were manufactured with greater care (Fig. 4). One may nevertheless suspect that there was an overlap in their issue, and that the die sinkers used either version indiscriminately (PLATE I, 6 uses both!), but tended as time went on to make do with two turrets.

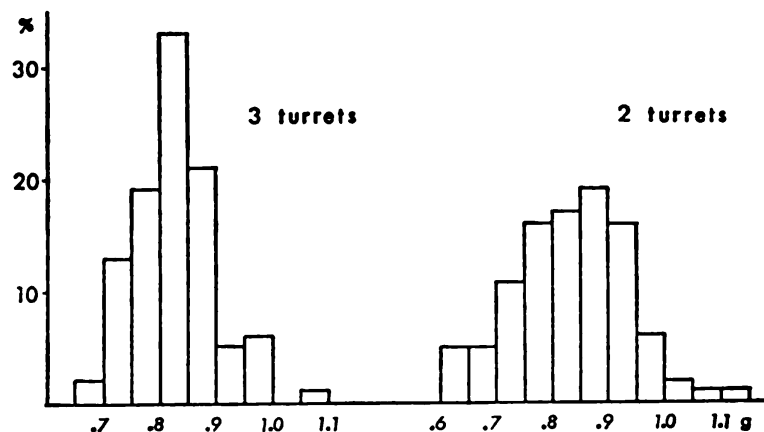


FIG. 4

An important coin (PLATE I, 1) is obviously experimental and probably early: note the elaborate treatment of the lion's mane over its chest; triple and quadruple stops in the legend; the tip of the lion's tail, which is not drawn in the standard fashion; and ✠ for X in REX. Coins with triple stops are apparently lighter than average (see the tabular summary below, pp. 105 ff.), and, in the 2-turret division, their weights are less accurately adjusted.

Nos. 2-9 exemplify the range of style among the normal 3-turret coins (although not the average quality of striking—these are better than average specimens). No. 4 has a coarser lion; but all the lion's tails are similar. Note the initial cross on nos. 8 and 9. Nos. 10-13 show the normal style of 2-turret coins. Nos. 10 and 11 have unusual lion's tails, and the mane on no. 11 is perhaps experimental. The rest of the coins on PLATE I are the "oddities" among those with the mint mark T. No. 14 seems to be in normal style except that the

mark is .T.. No. 15 has peculiar seriffing of the initial cross and the T. Nos. 16-18 are rough, but quite possibly official issues. No. 19 has many unusual features, especially in the small, neat lettering; and no. 20 is entirely different from anything else in the hoard.

#### MINT MARK B (*Burgos*)

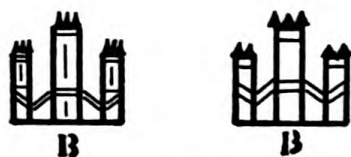


FIG. 5

The castle differs from that used on the coins of Toledo in several ways: the three towers are free-standing, i.e., they are not joined by a bold horizontal line half way up; there are only two turrets on the side towers; the majority of specimens are without windows (see Fig. 5). As at Toledo, this difference seems to be chronological, but only roughly so. Thus, there are a few coins which read F.REGIS instead of F.REX, and they are found with and without windows (cf. PLATE 2, 22 with 23-4). Nevertheless, histograms of two broad groupings of coins again show careful and careless control of the flans (Fig. 6), and encourage one to think that the classification coincides approximately with the sequence of issue. The "later"

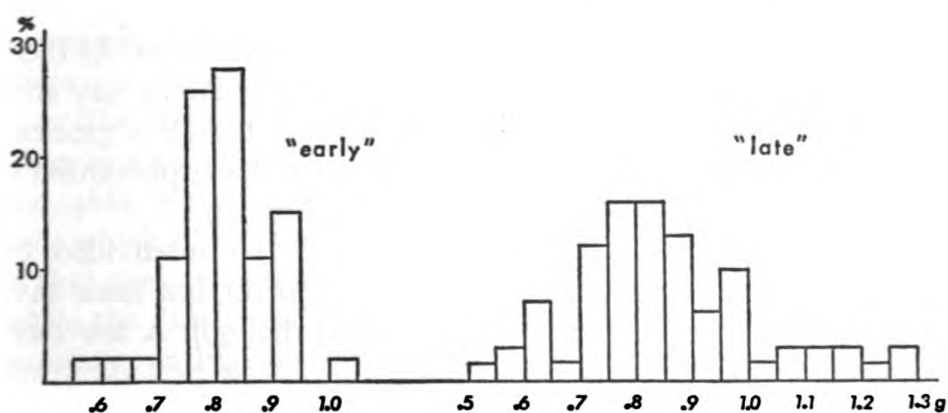


FIG. 6



grouping consists of normal coins without windows, and often with fat turrets (nos. 28–30), while the former grouping includes, for the purposes of the histogram, everything else, namely coins with windows and smaller, pointed turrets (nos. 25–7); coins reading REGIS; coins reading REX:, with and without windows; and experimental coins. No. 21 is an experimental coin with an unusually elaborate castle, with a large gateway in the central tower; note the lion's tail and mane, and the triple stops in the reverse legend. The lion of the Burgos mint normally has a small, neat head. Its tail is variable. Nos. 31–2 are included for the peculiarities of their letter-forms.

#### MINT MARK ... (*Perhaps Leon*)



FIG. 7

All but a few of the coins with the mint mark ... show a castle with a prominent gateway (Fig. 7b). A variety with branching ornaments on either side of the gateway (Fig. 7c) is fairly obviously by the same hand, and is linked with the main group by the obverses, which have a characteristic lion with large staring eyes, and often three dots for the tip of the tail (cf. no. 38 with 34 and 36). Chaves lists these (i.e., rev. variety as Fig. 7c) as his First Group for the mint, and argues that they are early. This may well be so. As there are only three specimens in the present hoard, one cannot say anything about their metrology. The few coins which lack a gateway (Fig. 7a) appear to be by a different hand: note the triple-dotted O and the reverse-barred dotted N in LEGIONIS (no. 33).

The coins corresponding with Fig. 7b can be subdivided by reference to the double annulet stops. Most are plain, but some have +: ET LEGIONIS (no. 35) or +ET LEGIONIS: (no. 36). A few have dots rather than annulets (nos. 34, 37).

On no. 40 the castle is badly blundered, but the style of the obverse is normal, and the coin would therefore appear to be an

official issue rather than a counterfeit. Perhaps the die sinker was not concentrating on his work when he made this reverse die.

The distribution of weights is approximately normal, and there are no obvious variations within the issue (Fig. 8).

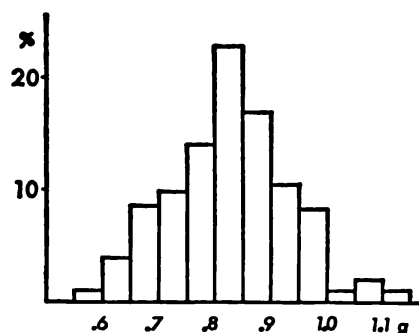


FIG. 8

#### MINT MARK BOWL (*Cuenca*)

The symbol for the mint of Cuenca is a rebus—a bowl (*cuenco*) or perhaps a pilgrim's bowl (*cuenca*). Heiss lists a bowl with a foot, and Chaves adds the variety without a foot. This is clearly from the same mint, as is shown by a stylistic comparison of the two. The castles

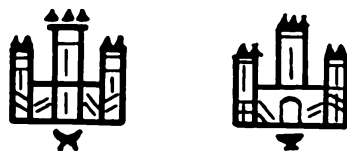


FIG. 9

are variable, but there are two basic designs (Fig. 9a and b); and there are two quite distinct styles for the lion—one is a neat version very like those of Toledo and Burgos (PLATE 3, no. 46a), while the other is a young and ruffled lion, distinctive, and peculiar to Cuenca (no. 46b). Note the mane on top of the head, and the brush of the tail, which often stands up vertically. The balance of the evidence is that the castle as at Fig. 9a is found with “neat” lions (nos. 42–4), while the “Cuencan” lion is accompanied either by a castle with a gateway, as Fig. 9b (47, 49), or by a garbled version of Fig. 10a (e.g., no. 48). No. 45 is an exception in that it has a “neat” lion with, apparently, a castle allied to Fig. 9b.

The mint mark can be in either form (the bowl with or without a foot) in either group, and sometimes it is difficult to decide which is intended. A bowl with a foot predominates in the neater variety and among the coins with the garbled castle, whereas the castle as Fig. 10b has the two forms of the mark in equal proportions (see the tabular summary below). Perhaps as time went on the die sinker was more inclined to make do with a bowl without a foot. In the Cuenca variety the reverse legend normally includes double stops, thus:  $\cdot\vdash\cdot\text{ET}\cdot$  (nos. 47-9), and at least one coin has triple stops.

Until the evidence of further hoards becomes available, metrology cannot give any very firm guidance as to the arrangement of the coins. There are not enough specimens with a "neat" lion and castle as Fig. 9a to make a reliable histogram, but those few that are available seem to be rather scattered in their weights (see Fig. 10a, where the histogram represents *all* the coins of Cuenca in the hoard, and the shaded area at the bottom represents the coins with a "neat" lion, etc.). If the coins with a characteristic Cuenca lion *and* castle are separated out (Fig. 10b, the shaded area), there is more clearly a contrast between them and the residue: these two groupings perhaps match the "early" and "late" histograms that have been proposed for Toledo and Burgos, and again suggest two phases with careful and less careful control of the flans. The less careful flans have a higher average weight—as reflected by the unshaded area to the right of the histogram, Fig. 10b.

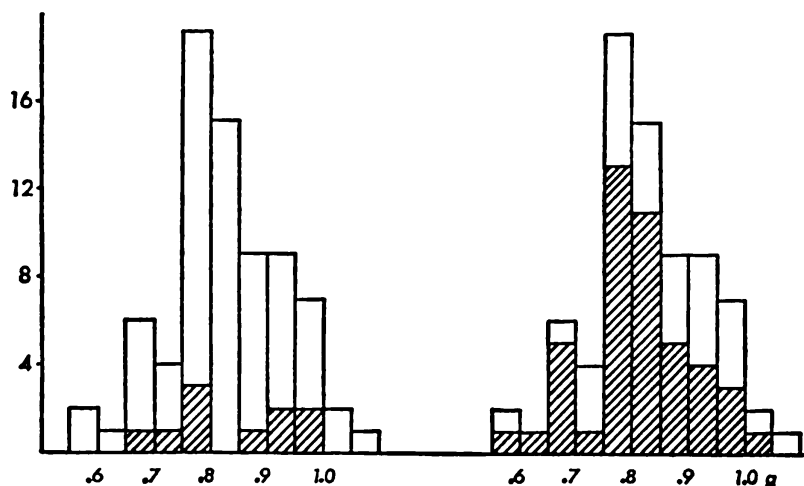


FIG. 10

The mint mark is very indistinct on no. 41. A close inspection of the coin suggests that it may be a more elaborate bowl with a recurved lip. The style of the castle in any case supports an attribution to Cuenca. Note the overhang of the thick horizontal line at the top of the central tower, and compare this detail and the castle generally with that on no. 44.

### MINT MARK S (*Seville*)

The coins with the mint letter S are on average less neatly struck, and they appear also to be more worn. In contrast to their general appearance, the weight of the flans is more accurately adjusted than at any other mint—37% of the specimens are in the central step of the histogram (Fig. 11a). It is instructive to compare the weights recorded by Chaves on the basis of museum specimens (Fig. 11b): the histogram is not much flattened, but it is well to the left, evidently the effect of wear.

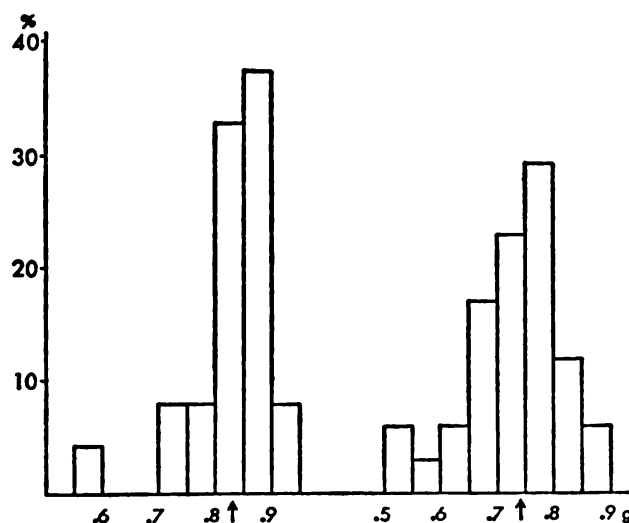


FIG. 11

Chaves makes an elaborate classification of the Seville issues into five groups: it is difficult to follow his scheme closely without more and better illustrations than he gives. On the evidence of the hoard, one can say that there are two distinctive styles of lion, which

together account for the majority of the specimens, and probably at least one other style. One lion has a large forehead, and a characteristic tail (nos. 50-1), and this corresponds with Chaves, Groups 2 and/or 3. The second has a thick line for its forehead, and a peculiar forked tail (nos. 52-3); this is Chaves's Group 1. On another variety, the tail ends in something like a fleur-de-lis (no. 54); these coins may be by the same hand as the second group. In Chaves's scheme they are apparently represented by Group 5. The first group (lion with large forehead) is, on limited evidence, even more compact metrologically than the remainder of the coins.

#### MINT MARK C (*Córdoba*)

The castle is characteristic, having single turrets in the intermediate sections (see Fig. 2, p. 95). The lion is a neater version of the "Cuencan" lion. The style of both obverse and reverse is neat and unusually consistent. In the legends there is a large X in REX, and a triple stop before and sometimes also after ET (nos. 55-7). The weights range widely.

Beltran notes that the mint of Córdoba is mentioned in a document of 1297.

#### MINT MARK LO (*Lorca*)

The two specimens in the hoard are illustrated as nos. 58-9.

#### THE INTENDED AVERAGE WEIGHT OF THE COINS

In attempting to assess the intended average weight, particular interest will attach to the phases of output when the manufacture of the flans was more carefully controlled. The mean values for the specimens represented on certain of the histograms are:

Fig. 4a (Toledo)	.831 gm. (85 specimens)
Fig. 6a (Burgos)	.816 gm. (53)
Fig. 8 (Leon?)	.829 gm. (84)
Fig. 9b (Cuenca)	.810 gm. (45)
Fig. 11a (Seville)	.828 gm. (24)

The less accurately adjusted coins of Toledo average .836 gm. (108 specimens), those of Burgos .856 gm. (69), and those of Cuenca .841 gm. (20).

Chaves's averages are appreciably lower. For Seville, the average is .74 gm., and the histogram, Fig. 12b, shows that this is not influenced, for example, by the inclusion of a small proportion of very worn coins. For (?) Leon, Chaves's figures give an average of .72 gm. This implies an average loss of weight by wear of around 12%. For Coruña, not represented in the present hoard, the average is again .72 gm.

Collantes Vidal gives average figures for groups of six coins, e.g., Toledo, .77 gm., .79 gm.; Seville, .73 gm. No systematic comparisons can usefully be made.

The monetary privilege of Lorca tells us that the coins were to be 2d fine (two-twelfths fine silver), and this is confirmed by the chemical analyses published by Chaves, which show 15.4 or 15.5% Ag. They were to be struck at 22s. to the marc, with a permitted tolerance of 3s. on either side, i.e., 19–25s. to the marc. The weight of the marc was close to 230 gm. Gil Farrés, in his discussion of the text, takes the sueldo to be 8 coins, and thus arrives at an intended weight of 1.30 gm. In spite of the clear references to a sueldo of 8 dineros, it seems plain, in the context of mediaeval metrology generally and the histograms for the present hoard in particular, that the privilege of Lorca refers to a sueldo of 12 coins, and thus an intended average weight of about .87 gm., and a permitted range of .77–1.01 gm. Evidently the novenes were reckoned as two-thirds of a "dinero" on the basis that the cornados of Sancho IV were of the same weight but were 3d fine.

## THE RELATIVE OUTPUT OF THE VARIOUS MINTS

A division of the totals of F.REX coins between the different mints is available for only four hoards. It can be supplemented by figures for the proportions of F.REGIS coins in two further hoards. These six are not enough for a proper analysis of the proportions that are typical for each mint, as three of the hoards that are listed in detail

contain only small quantities of the F.REX issue. But we are at least fortunate in having three early and three late hoards.

The table shows no great regularity even at the points where, at first glance, the statistics might be expected to be most reliable,

	San Martín	Penaturmil	Hoard of 1969	Briviesca	Ordejón de Abajo	Burgos
Toledo		21	223	7	20	
Burgos		22	152	14	11	
Leon?		3	94	4	4	
Cuenca		11	95	2	10	
Seville?		5	39			
Córdoba?		4	8			
Lorca?			2			
		66	613	27	45	
Uncertain		9	30			
REGIS: REX	3:224	3:72	11:632	0:27	0:45	4:52

e.g., the two common mints in the two late hoards give inconsistent percentages (Briviesca: Toledo 26%, Burgos 52%; Ordejón: Toledo 45%, Burgos 24%). Briviesca is on the far side of Burgos, away from the other mints, and the hoard is overweighted also with Burgos coins of Sancho IV; one might therefore invoke a tendency toward localized circulation of the issues of each mint in their own region, in order to explain the numbers.

In advancing this sort of argument, one can never be sure whether a particular hoard was assembled in the part of the country in which it was concealed; and in order to discount unknown particularities, the evidence of at least fifteen or twenty hoards will be required. Thus, the Penaturmil hoard, from the extreme northwest, has an unusually *low* percentage of the coins marked (...) and provisionally attributed to Leon. If this pattern were repeated in other hoards

from the northwest, and if further evidence of localized circulation emerged, it would be an argument against the attribution.

One must attach all these reservations to what is perhaps the main point of interest for monetary history and the study of regionalism to arise from the hoard, namely that the southern mints were not very active in producing novenes for Fernando IV. There is the evidence published by Chaves that the issues of Córdoba are scarce; and those of Lorca are far more so. Even Seville accounts apparently for at most 5-10% of the total production (and its output seems to have been relatively unimportant also under Sancho IV).

## SUMMARY

	.600 gm. and under	.601-.650 gm.	.651-.700 gm.	.701-.750 gm.	.751-.800 gm.	.801-.850 gm.	.851-.900 gm.	.901-.950 gm.	.951-1.000 gm.	1.001-1.050 gm.	1.051 gm. and over	TOTAL
<i>Toledo</i>												
3 turrets, triple stops				2	7	1	4		1			15
ET:			2	7	4	18	10	1	3		1	46
ET• or ET.				2	5	9	4	3	1			24
2 turrets, triple stops	1	2	1	3	3	2	3	1				16
ET:	3	3	6	9	7	13	12	2	2	2		59
ET• or ET.	1		4	4	8	4	1	3				25
Other coins					1	1	1	3	2			8
												<hr/> 193



	.600 gm. and under	.601-.650 gm.	.651-.700 gm.	.701-.750 gm.	.751-.800 gm.	.801-.850 gm.	.851-.900 gm.	.901-.950 gm.	.951-1.000 gm.	1.001-1.050 gm.	1.051 gm. and over	TOTAL
<i>Burgos</i>												
With gateway				4				1		1		6
As Fig. 5a, F:REGIS				1		1	1					3
As Fig. 5b, F:REGIS					3	4		1				8
As Fig. 5a, F REX:					2	2		2				6
As Fig. 5b, F REX:					1	1						2
As Fig. 5a, F REX, small, pointed turrets	1	1	1	2	7	7	5	4				28
As Fig. 5b, F REX, fat turrets	3	5	1	8	11	11	9	4	7	1	9	69
												122
<i>Leon? (...)</i>												
As Fig. 7a				1		1	1		1	1		5
As Fig. 7b, ET		3	2	1	6	5	2	4			1	24
IS			3	1	2	4	5	2	1			18
plain	1		1	5	4	6	6	2	4		2	31
As Fig. 7c			1			2						3
Other coins						1		1	1			3
												84
<i>Cuenca</i>												
As Fig. 9a; neat lion; bowl with foot			1	1	1		1	1	2			7
bowl without foot					2			1				3
Garbled castle; nearly all Cuencan lions;												

	.600 gm. and under	.601-.650 gm.	.651-.700 gm.	.701-.750 gm.	.751-.800 gm.	.801-.850 gm.	.851-.900 gm.	.901-.950 gm.	.951-1.000 gm.	1.001-1.050 gm.	1.051 gm. and over	TOTAL
bowl with foot				2	2	3	3	3	2	1	1	17
bowl without foot	1				1	1						3
As Fig. 9b; "Cuencan" lion												
bowl with foot	1		4	1	6	4	3	1	1	1		22
bowl without foot		1	1		7	7	2	3	2			23
												<hr/> 75
<i>Seville?</i>												
Lion with large forehead						4	4					8
Lion with forked tail	1			1		3	3	1				9
Lion with fleur-de-lis tail					1	1	2	1				5
Uncertain				1	1							<hr/> 2
												24
<i>Córdoba</i>												
			2	1	1	1	1	1	1			8
<i>Lorca?</i>												
					1			1				2



## A TRINITY MEDAL BY HANS REINHART

(PLATES XVIII-XIX)

HENRY GRUNTHAL

In October 1971 the American Numismatic Society acquired a specimen of the well-known Trinity medal, the unquestionable masterwork of Hans Reinhart, one of the best-known medallists of the German renaissance. Reinhart was probably born in Wittenberg about 1510 and acquired citizenship in Leipzig in 1539. Since he designed a medal in 1535 for John Frederick of Saxony it is highly probable that he lived in Saxony even before acquiring the Leipzig citizenship. Reinhart did not limit his work to medals but also produced artistic spoons, belts and daggers, to which the goldsmiths' guild objected. Therefore, although the master enjoyed the goodwill of the city council, he had to subject himself to an apprenticeship with a goldsmith. He studied for five years under master Georg Trentler and in 1547 presented the required three masterpieces to the city council. The apprenticeship was only a formality since Reinhart had his own workshop and employed several apprentices himself, which accounts for his abundant medal production and the frequent appearance of minor varieties.

The Trinity medal is his principal creation and exists in various forms, issued in 1544, 1556, 1561, 1569 and 1574. The medal was so popular that it was copied on several occasions after Reinhart's death in 1581. A portrait medal of the master, probably the work of Tobias Wolff, exists in the Munich Coin Cabinet.

Our medal is dated 1544. Its provenance can be traced to the New York sale by Stack's of the Buchman collection on March 22, 1940. *Obv.*: PROSTER [recte PROPTER] SCELVS POPVLI MEI PERCVSSI EVM8 ESAIÆ LIII. God the Father wearing ornate cape with crown, scepter and orb, seated on elaborate throne. A crucifix rests against his knees. The holy dove rests on the crucifix. Two angels standing on clouds are at the sides of the throne. Angels' heads are in the field and on the pillars of the throne. The footrest lacks the usual initials H-R.

Rev.: REGNANTE • MAVRITIO • D: G: DVCE: SAXONIAE, <sup>Ω</sup> ZC: GROSSVM HVNC • LIPSIÆ • HR: CVDEBAT: ANº. M•D•XLIII MENSE • IANV®. Two angels support a tablet on which an excerpt of the Athanasian creed is followed by a pious appeal to the Trinity: HÆC EST / FIDES CATHOLICA, / VT•VNVM DEVM IN TRINI, / TATE, ET TRINITATEM, IN / VNITATE, VENEREMVR\* / ALIA EST PERSONA PATRIS, / ALIA FILII, ALIA SPIRITVS / SANCTI\* SED PATRIS ET FI / LII ET SPIRITVS SANCTI, V / NA EST DIVINITAS, ÆQVA / LIS GLORIA, COETERNA / MAIESTAS / O VENERADA VNITAS, O / ADORANDA TRINITAS, PER / TE SVMVS CREATI, VERA / AETERNITAS, PER TE SV / MVS REDEMPTI SVMMA TV / CHARITAS, TE ADORAMVS / OMNIPOTENS, TIBI / CANIMVS TIBI / LAVS ET GLO / RIA. Small shield with IHS on top of tablet. A loop with a triple chain is attached at the top of the medal and a violet glass pendant at the bottom, both later additions.

102 mm. Habich, *Die Deutschen Schaumünzen*, II.1, no. 1962; Tentzel, *Saxonia Numismatica* 1, pl. 8; Domanig, *Die Deutsche Medaille*, no. 758.

In addition to the ANS medal I have been able to locate 14 specimens with the 1544 date in the following collections: Berlin, Engelhardt; Wrocław (Breslau); British Museum; Gdansk (Danzig); Dresden; Gotha; The Hague; Coburg; Munich; Vatican (2 in collection); Ulm, von Schermarsche Stiftung; Utrecht, Archdiocesan Museum; Weimar.

The medal has appeared in several auction sales. The Dresden specimen was purchased in 1798 from the Dalwitz sale. The next specimen offered for sale was listed in the Engelhardt collection (no. 242) catalogued in 1888 by the Erbstein brothers. The following additional sales records have come to my attention: Catalogue Felix, Hess 1895, no. 232; Pogge no. 2782; Belli 1904, no. 6422; Loebbecke 1908, no. 566.

The medal was reissued on four occasions, in 1556, 1561, 1569 and 1574. The 1556 issue survives in only one specimen, now in the collection of the Germanische Museum at Nuremberg. Of the 1561 medal only one specimen is known, in the Städtische Kunstgewerbe Museum in Leipzig. The 1569 medal is extant in three specimens,

in the Victoria and Albert Museum in London, the Germanische Museum in Nuremberg, and the Städtisches Museum in Troppau. The last Trinity medal produced during Hans Reinhart's lifetime, dated 1574, is in the Kunstgewerbe Museum in Frankfurt, and is identical to the specimen in the Metzler collection sold by Julius Cahn in Frankfurt in 1898, no. 71. The reverse of this piece shows the adoration of the Magi.

The historical significance of the medal is easily understood. The obverse represents the Trinity; the reverse shows a tablet with three clauses of the Athanasian creed and contains an appeal to the Holy Trinity. The legend states that this medal was cast during the reign of Moritz, duke of Saxony, in January 1544, at Leipzig and the medal reflects quite precisely the political and religious affairs of the period just before the "War of Schmalkalden" when Catholics and Protestants tried again to accomplish unification. Although such an attempt had failed in 1541 at the Diet of Ratisbon, the Protestant hope for a reconciliation was strengthened by the fact that the emperor and the pope were politically estranged. Duke Moritz of Saxony was especially interested in such a rapprochement. He had embraced protestantism in 1539 and at the beginning of his reign in 1541 had secured the support of John Frederick the Magnanimous, elector of Saxony. No dogma was as appropriate for a unified creed as the one pertaining to the Holy Trinity formulated by Athanasius which was acceptable to Catholics and Protestants alike.

In 1544 Moritz commissioned Hans Reinhart to create the Trinity medal to glorify the Athanasian creed, an act which he hoped would lead to religious peace. This show piece is a monument to Moritz's endeavors for unification. The medal itself is of the finest craftsmanship. The thin cast planchet rises slowly toward the edge which carries the legend, a technique which can also be observed on Reinhart's earlier medals of the crucifixion and of the fall of man. The main relief, the richly ornate throne and the gorgeous dress of the Father as well as the foot rest, is not very high, hardly exceeding the height of the edge. All the other parts such as the Father's crowned head, the hands with scepter and orb, the crucifix with the dove and the angel figures were separately cast and chased before being soldered to the medal.



## SEVENTH CENTURY ARAB IMITATIONS OF ALEXANDRIAN DODECANUMMIA

(PLATE XXIII)

HENRI AMIN AWAD

It has long been evident that many of the "barbarous" or blundered dodecanummia of Alexandria imitating types of Heraclius and Constans II must be attributed to the Arabs. In an article in the *Centennial Publication of the American Numismatic Society*,<sup>1</sup> G. C. Miles observed that there was no evidence of the development of transitional Arab types in Egypt comparable to those in Palestine, Syria, Iraq and Iran during the period between the Arab conquest and roughly 75 H./A.D. 694-5, and that it was to be hoped that eventually criteria might be established for identifying certain classes of Alexandria 12-nummia pieces as Arab imitations which would fill the numismatic hiatus in Egypt between about 25 H./A.D. 646 and 'Abd al-Malik's coinage reform, when anonymous purely Arabic epigraphical types begin to appear.<sup>2</sup>

In recent years I have acquired from Fustāt some 180 bronze coins which are without doubt Arab imitations issued during the period in question. I am indebted to Dr. Abdel Rahman Fahmy of Cairo

<sup>1</sup> "The Early Islamic Bronze Coinage of Egypt," *ANSCent. Publ.* (New York, 1958), pp. 471-473.

<sup>2</sup> In 1956 the late John Walker touched on the problem in the second volume of his British Museum catalogue, *A Catalogue of the Arab-Byzantine and Post-Reform Umayyad Coins*, p. 53. Subsequently the matter was considered very briefly by J. R. Phillips, "The Byzantine Bronze Coins of Alexandria in the Seventh Century," *NC* 1962, pp. 235-236. Philip Grierson's clear statement of the problem, *Catalogue of the Byzantine Coins in the Dumbarton Oaks Collection*, II (Washington, 1968), pp. 42, 61-62, includes references to earlier literature on the subject. Previous to Miles's article, H. Lavoix described two imitations of Alexandrian type, *Catalogue des Monnaies Musulmanes de la Bibliothèque Nationale*, I (Paris, 1887), nos. 94-95; and Warwick Wroth described and illustrated several pieces in *BM Cat. Byz.* (London, 1908), I, p. 227. In *Rare Islamic Coins*, *ANSNM* 118 (New York, 1950), G. C. Miles misattributed two cast coins, somewhat resembling Type I, below, in the ANS collection (no. 106), which he later recognized as Arab imitations of Alexandrian dodecanummia *ANSCent. Publ.*, p. 473, note 7.



University for help in the following classification of this material; to G. C. Miles for revising the text of the present article; and to Joan M. Fagerlie for suggesting probable Byzantine prototypes.

Several criteria are of general assistance in distinguishing the imitations from their Byzantine prototypes. The metal for the most part is of inferior quality and appears to contain more copper than the Byzantine issues; hence most specimens are badly corroded. Weights vary widely, from a maximum of 11.15 grams to as little as 0.80 grams.<sup>3</sup> Thickness also varies considerably: some specimens, in contrast to the typical Byzantine Alexandrian fabric, are as thin as Palestinian and Syrian Arab-Byzantine imitations and adaptations. The "imperial" figures are clumsy and wooden, the delineation essentially linear; and the "imperial" costume is generally misunderstood. The epigraphy is crude, sometimes the letters I and B are transposed, and the word  $\Lambda\Lambda\Xi$  is usually blundered. Finally the cross on the reverse is frequently deformed.

Among the coins in my collection I have distinguished four principal types:

#### TYPE I

*Obv.*: Very crude busts left and right of long cross.

*Rev.*: Cross on steps; at left A; at right  $\omega$ ; in exergue, illegible legend. (PLATE XXIII, 1, 2)

I have five specimens of this type in my collection. Diameters and weights of three are: 17, 6.05; 15, 4.91; 12, 2.0. Compare Miles, *Rare Islamic Coins*, no. 106.

The Byzantine prototype for the obverse was probably Heraclius, *DOCat.* 193; for the reverse, possibly Phocas, *DOCat.* 112 (Carthage), and cf. Wroth, *Vandals*, p. liv, note 1; also Heraclius, *DOCat.* p. 382, no. 312 (Spain?).

<sup>3</sup> For a brief discussion of the weights of Byzantine dodecanummia of Alexandria and of early post-reform Arab bronze coins of Egypt see, G. C. Miles, "On the Varieties and Accuracy of Eighth Century Arab Coin Weights," in the L. A. Mayer Memorial Volume, *Eretz-Israel*, VII (Jerusalem, 1963), pp. 86-87 and Tables V and VI.

## TYPE II

*Obv.*: Crude facing bust with coarse features, large eyes and thick lips, large buns of hair, crown without cross. At right usually a large star and at left a palm branch (?).

*Rev.*:  $\text{IM}_B$  or  $\text{IMB}$ . Sometimes a letter or monogram

above  $\text{M}$ . In the exergue usually ABAZ.

(PLATE XXIII, 3, 4)

It is to be noted that there are no Christian symbols on either obverse or reverse.

I have 25 specimens of this type. Diameters and weights of 5 specimens are: 13, 6.42; 11, 6.51; 13, 6.31; 13, 8.11; 11, 7.25.

The Byzantine prototypes are probably for the obverse Heraclius (Chosroes), *DOCat.* 191-2, and for the reverse Heraclius, *DOCat.* 197.

## TYPE III(a)

*Obv.*: Three crude standing "imperial" figures; crosses on crowns.

*Rev.*:  $\text{I}\Delta\text{B}$ . In the exergue:  $\text{A}\Lambda\text{Z}$ . (PLATE XXIII, 5, 6)

I have 50 specimens of Type III(a), (b) and (c). Diameters and weights of two specimens of III(a) are: 18, 9.15; 18, 11.15.

## TYPE III(b)

*Obv.*: Similar to III(a), but even cruder.

*Rev.*:  $\text{I}\text{†}\text{B}$ . Legend in exergue illegible. (PLATE XXIII, 7)

Diameters and weights of two specimens of III(b) are: 16, 6.13; 11, 6.51.

## TYPE III(c)

*Obv.*: Similar to III(a), very crude, frequently almost unrecognizable.

*Rev.*:  $\text{I}\frac{\text{†}}{\text{M}}\text{B}$ . In the exergue usually  $\text{A}\Lambda\text{EZ}$ . (PLATE XXIII, 8, 9)

Diameters and weights of seven specimens of III(c) are: 16, 6.4; 15, 5.9; 15, 4.82; 16, 6.24; 17, 8.21; 18, 6.15; 16, 6.5.

The Byzantine prototypes are probably: obverse, Heraclius, *DOCat.* 196-7; reverse, (a) Heraclius, *DOCat.* 196, (b) Heraclius, *DOCat.* 191-2, (c) Heraclius, *DOCat.* 197.

#### TYPE IV(a)

*Obv.*: Very crude squat standing figure holding orb cruciger in left hand; large star at right beneath orb cruciger.

*Rev.*: I†B. In exergue frequently MAC or ...CA, or frequently illegible legend. (PLATE XXIII, 10, 11)

I have 100 specimens of Type IV(a), (b), (c), (d) and (e). Diameters and weights of 12 specimens of IV(a) are: 20, 4.77; 17, 4.20; 19, 5.07; 16, 7.03; 20, 3.10; 17, 3.12; 16, 3.50; 20, 4.50; 20, 4.35; 15, 2.72; 17, 5.30; 20, 3.80.

#### TYPE IV(b)

*Obv.*: Tall crude standing figure, bearded (?), wearing headdress resembling a turban (?), holding a long cross in right hand, short cross (without orb) in left.

*Rev.*: I†B. In exergue usually VΛE (?). (PLATE XXIII, 12, 13)

Diameters and weights of two specimens of IV(b) are: 16, 5.39; 16, 4.74.

#### TYPE IV(c)

*Obv.*: Very crude three-quarter standing figure, holding long cross in right hand, orb cruciger in left.

*Rev.*: I†B. Legend in exergue illegible. (PLATE XXIII, 14)

Diameters and weights of three specimens of IV(c) are: 15, 4.60; 16, 4.77; 17, 5.75.

#### TYPE IV(d)

*Obv.*: Less crude full standing figure, holding long cross in right hand, globe cruciger in left; "crown" appears to be topped by a cross.

*Rev.*: I<sup>✠</sup><sub>M</sub>B. In exergue ..ΛE... (?). (PLATE XXIII, 15)

Diameter and weight of one specimen of IV(d): 18, 6.98.

## TYPE IV(e)

*Obv.*: Very crude nearly full-length standing figure, holding long cross in right hand, left arm and hand indeterminate.

*Rev.*: I†B. In exergue AΛΕ. (PLATE XXIII, 16)

This type is characterized by small diameter and very light weight, never exceeding 2 grams. Diameters and weights of five specimens of IV (e) are: 10, 0.87; 8, 0.80; 11, 1.36; 12, 1.81; 13, 2.00.

The Byzantine prototypes are probably: obverse, Constans II, *DOCat.* 105-6 (but the face is perhaps bearded); reverse, (a) Constans II, *DOCat.* 105, (b) and (c) the same, (d) Constans II ("Heraclonas"), *DOCat.* 7, (e) Constans II, same as (a)-(c).

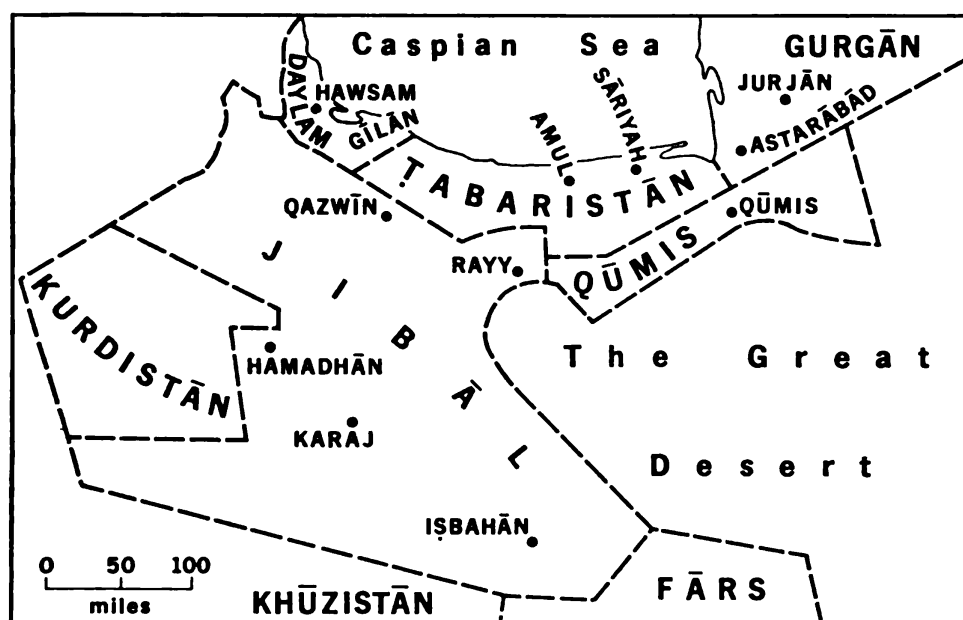


# COINAGE OF THE ZIYĀRID DYNASTY OF ṬABARISTĀN AND GURGĀN

(PLATES XXIV-XXVI)

GEORGE C. MILES

The Ziyārid dynasty of Ṭabaristān and Gurgān takes its name from Ziyār, a chieftain of Gīlān, son of Wardān-Shāh, a scion of the old Daylamite family of Arghush.<sup>1</sup> We know little or nothing of Ziyār, but of his son Mardāwij, the founder of the dynasty, thanks to contemporary and near-contemporary historians, we know a good deal. His rule is generally reckoned to have begun in 315 H./A.D. 927, and of his death in 323/935 we have circumstantial and quite shocking accounts. Mardāwij was succeeded by his brother Wushmagīr (323-357/935-967). Of Wushmagīr's sons two ruled after him:



Bisutūn from 357 to 367 (967-978); and Qābūs from 367 to 403 (978-1013). Qābūs was succeeded by his son, Minūchihr, 403 to 420

<sup>1</sup> A brief oral version of this paper (without the corpus) was presented at the 1971 annual meeting of the American Oriental Society in Cambridge, Mass.

(1013–1029). The later, somewhat shadowy Ziyārids need not be considered since they struck no coins.<sup>2</sup>

Of the first five Ziyārid rulers, we have hitherto known of coins struck by two only, Bīsūtūn and Qābūs (parenthetically it should be remarked that a number of coins assigned to Wushmagīr by several earlier numismatists were misattributed: they belong to Bīsūtūn).<sup>3</sup> Of the six recorded mints five are concentrated in Gurgān, eastern Ṭabaristān (or Māzandarān) and Qūmis in the region southeast of the Caspian Sea: Amul, Sāriyah (Sāri today), Astarābād, Jurjān and Qūmis (Dāmghān). The sixth, Hawsam, is in Gīlān on the border of Daylam, almost certainly to be identified with Khashm.<sup>4</sup>

Bīsūtūn's coins are of two basic types: those with his name Bīsūtūn b. Wushmagīr, and those with the title Ṣahīr al-Dawlah and the "family" name Wushmagīr. Illustrated in PLATE XXIV, 3 is a dirhem struck in Jurjān in 358/968–9. The first two and a half lines of the obverse area are taken up by the *shahada*, there follows the name "Bīsūtūn," and on the next line "b. Wushmagīr." Beneath is an unusual phrase, probably منع به, "protect him." The reverse bears the names of the ruling Caliph al-Muṭī' and the Būyid overlord Rukn al-Dawlah abū-'Alī. Bīsūtūn's other basic type also carries the names of the Caliph and the Būyid prince, but in place of Bīsūtūn's

<sup>2</sup> For short histories of the Ziyārids, see Clément Huart, "Les Ziyārides," *Mém. de l'Académie des Inscriptions et Belles-Lettres*, XLII (Paris, 1922), pp. 357–436 and Huart, s.v. Ziyārids in *EI*<sup>1</sup>. A very brief summary will be found in C. E. Bosworth, *The Islamic Dynasties* (Edinburgh, 1967), where the dates of Bīsūtūn and Minūchihr are to be corrected, and Wushmagīr's honorific should be deleted. S. M. Stern's excellent article, "The Coins of Āmul," *NC* 1967, pp. 205–278, contains much valuable information on the Ziyārids. Zambaur's chronology and titulature in his *Manuel* require revision. For the later Ziyārids, after Minūchihr, see Bosworth, "On the chronology of the Ziyārids in Gurgān and Ṭabaristān," *Der Islam* 40 (1964), pp. 25–34.

<sup>3</sup> Stern, *NC* 1967, pp. 221, 249–250, discusses and explains the misattributions. I do not include in this article the numerous coins bearing the names of Sāmānid princes but lacking Ziyārid names which Stern attributes to the Ziyārids because they were in control of Amul when those coins were struck (325–331, 338–351, 353–357 H.). Stern finds it difficult (p. 221) to explain why Mardāwij and Wushmagīr failed to place their names on the coins. One would assume it was because the powerful Sāmānids, always threatening from the east, forbade it.

<sup>4</sup> For the identification see Stern, *NC* 1967, pp. 230, 278; and W. Madelung, "Abū Iṣḥāq al-Ṣābī on the Alids of Ṭabaristān and Gīlān," *JNES* 26 (1967), p. 27.

name it bears his honorific, Ṣahīr al-Dawlah, and the "family" name, Wushmagīr. An example of Astarābād, 361 H., is illustrated in PLATE XXIV, 5. Bīsūtūn's coins are the most common of the Ziyārid series (if one may say "common" of any of the coins of this minor dynasty), as can be seen from the corpus, pp. 128ff., below. Unfortunately the historians tell us so little about Bīsūtūn that he remains little more than a name.

About Qābūs, his brother and successor, however, we are quite well informed. Six specimens of his coinage are illustrated in PLATE XXVI. A dirhem of Sāriyah dated 367 (no. 19) has الطائع لله اعضد on the obverse, and on the reverse قابوس ابن وشمگیر. Aḍud al-Dawlah, the Būyid, has the additional honorific *Tāj al-Millah*, "The Crown of the Faith," and includes his *kunya*, abū-Shujā'. Following *Muḥammad rasūl Allāh* is an exceptional pious expression, evidently *ḥarsuhu huwa'llāh*, "God is his protection." A specimen of Amul, 368 H. (no. 20) has the same names, but the Ziyārid's on the obverse is differently divided. A dirhem of Jurjān of the same year (no. 21) bears at the bottom of the obverse the name Qābūs b. Wushmagīr in one line inscribed in cursive characters.

Qābūs, known as Shams al-Ma'ālī, "Sun of the Heights," was a well-known figure in late 10th/early 11th century Iran. Like most of these princes from the mountainous regions of northern Persia he was a great warrior, but in addition he was a generous patron of men of letters and something of a litterateur himself. He protected al-Bīrūnī and in fact that great polymath dedicated his famous "Chronology of Nations" to Qābūs. Also among those he patronized was Avicenna, noted philosopher, natural scientist and physician. Ibn Khallikān tells us that Qābūs wrote a beautiful hand. Ṣāḥib Ibn 'Abbād, the brilliant and learned vizier of the Būyid princes Mu'ayyid al-Dawlah and Fakhr al-Dawlah, once said that when he saw pieces in Qābūs' handwriting he used to exclaim: This is either the writing of Qābūs or the wing of a peacock. Ibn Isfandiyār speaks of Qābūs' remarkable eloquence in Arabic, of his knowledge of philosophy, astronomy and astrology. Among his writings was a treatise on the astrolabe. The popular book of "sage counsels and admonitions" known as the *Qābūs-Nāme* formerly was ascribed to him but actually



it was written by a grandson, 'Unṣur al-Ma'ālī Kai-Kā'ūs.<sup>5</sup> Qābūs has left us an extraordinary monument: toward the end of his life he built for himself outside of Jurjān a splendid and curious tomb-tower, dated in simple Kufic 397 H./A.D. 1006-7 (remarkably it also carries the date 375 *shamsīyah*).<sup>6</sup> But for all his noble and exceptional qualities, his learning and his piety, Qābūs had a terrible reputation for arrogance and cruelty; his followers rebelled in 403/1013, he was deposed and shortly afterward murdered in his mountain hideaway, Janāshk.<sup>7</sup>

So much for the Ziyārids whose coins were hitherto known to us. We come now to three recently recognized Ziyārid issues which led to the preparation of this article. Late in 1970 I had the opportunity to look over a miscellaneous lot of gold coins brought in to the American Numismatic Society by a dealer. Among them was a dinar of Mardāwīj, not only the first coin of Mardāwīj that has come to light but also the only gold coin so far known of the Ziyārids.

*Dinar*, Mardāwīj b. Ziyār, Karaj, 322 H./A.D. 933-4. (ANS) *A* 25 mm., 4.47 gm., PLATE XXIV, 1.

*Obv.:*

لا اله الا الله  
وحده لا شريك له  
ابو القسم بن  
امير المؤمنين  
مرداوج بن زيار  
٩٧

*Rev.:*

الله  
محمد  
رسول  
الله  
القاهر بالله

<sup>5</sup> This delightful book is available to English readers in an excellent translation by Reuben Levy, *A Mirror for Princes* (The Cresset Press, London, 1951). See also R. N. Frye, "The Andarz Nāme of Kāyūs b. Iskandar b. Kāpūs b. Vušmgīr," *Serta Cantabrigiensia*, 1954, pp. 7-21.

<sup>6</sup> The text of the inscription is given in *Répertoire Chronologique d'Épigraphie Arabe*, VI, no. 2118; for a good illustration see André Godard, *L'Art de l'Iran* (Paris, 1962), pl. 123.

<sup>7</sup> Between Jurjān and Astarābād (C. Barbier de Meynard, *Dictionnaire géographique ... de la Perse* (Paris, 1861), p. 167. The principal sources utilized in this brief biography of Qābūs are: Rudhrawari (ed. Margoliouth in Miskawayh), pp. 15-17, 25, 28, 93, 98, 297; Ibn Isfandiār (transl. E. G. Browne), pp. 92, 229, 232-233; Ibn Khallikān, II, pp. 507ff.; Ibn al-Athīr, IX, pp. 238-240; and the secondary authorities cited in note 2, above. See also E. G. Browne, *A Literary History of Persia*, I (New York, 1906), pp. 469-470.

*Inner margin:* بِسْمِ اللَّهِ ضَرْبَ هَذَا الدِّينَارِ *Margin:* Traces of Qur'ān, IX, 33

[ب] كَرَجَ سَنَةِ اثْنَتَيْنِ وَثَلَاثَ مِائَةٍ

*Outer margin:* Qur'ān XXX, 3-4

(about one-half

preserved)

To be noted are the splendid foliate tails to the *rā'* of Mardāwij and the *nūn* of *bin*, and the little ornament in between.

Now the reign of the Caliph al-Qāhir, whose name appears on the reverse, lasted only a few more days than a year and a half, from 27 Shawwāl 320/Oct. 31, 932 to 5th Jumādā I, 322/April 23, 934, when he was deposed, blinded and imprisoned. Eleven years later the poor man was released and he could be seen tap-tapping his way about the streets of Baghdad, begging, until his death in Jumādā I, 339. That delightful historian al-Mas'ūdi<sup>8</sup> tells us that al-Qāhir was still alive when he was writing his *Murūj* and that he had been told that he lived in the Dār Ibn Ṭāhir in the western section of Baghdad.<sup>9</sup> Our dinar, then, was struck sometime in the first five months of the year 322 (it would have taken only a few days for the news of al-Qāhir's deposition to reach Karaj from Baghdad).

Mardāwij first appears on the scene in Jibāl in the year 315/927 when, as a lieutenant of Asfār b. Shīroye, the Sāmānid general, he was summoned from Daylam to aid in the conquest of Ṭabaristān. A year later he became governor of the great city of Rayy with control over most of Jibāl, from Qazwīn in the north to Iṣbahān in the south; and subsequently he recrossed the mountains and took possession of Gurgān. We need not follow here all of Mardāwij's comings and goings in the following years, but it is of interest to recall that in 321 he invested 'Ali b. Būyeh (later known as 'Imād al-Dawlah) with the governorship of Karaj, our mint-town.<sup>10</sup> By

<sup>8</sup> Al-Mas'ūdi, *Murūj* (ed. Barbier de Meynard), VIII, p. 288.

<sup>9</sup> I have not been able to find any mention of the Dār Ibn Ṭāhir in G. Le Strange's *Baghdad During the Abbasid Caliphate*, in A. A. Duri's encyclopaedic article on Baghdād in *EI*<sup>2</sup>, in G. Makdisi, "The Topography of Eleventh Century Bagdād," *Arabica* 6 (1959), pp. 178ff., 281ff., or in J. Lassner, "Notes on the Topography of Baghdad . . .," *JAOS* 83 (1963), pp. 458ff.

<sup>10</sup> In an unpublished paper presented orally at the 1971 annual meeting of the American Oriental Society in Cambridge, Mass., Kenneth A. Luther definitively identified the Karaj-i abi-Dulaf of the mediaeval geographers with a site near the present Astaneh on the old route between Hamadhān

322, the year this dinar was struck, Mardāwīj's dominion extended as far west as Rāmhurmuz, and for a while Ahwāz, in the province of Khūzistān. But his time was nearly up. As so often happened with these petty dynasts, their power and greed, their exactions and depredations led inevitably to their downfall, most frequently at the hands of their own followers. Mardāwīj's Turkish mercenaries plotted against him, and a few days after the so-called Night of Sadhaq (roth of Bahman) in the year 323 (Feb. 22, 935), conspirators murdered him in his bath. The event is recorded in gory detail by Miskawayh. Thus our coin was issued less than a year before Mardāwīj's death and evidently at a time when he had relieved the Būyid 'Alī of the governorship of Karaj. Karaj, incidentally, has a very restricted numismatic history: we know only of a few Abū-Dulafid lead seals of the mid-3rd century of the Hijrah,<sup>11</sup> dinars of 293<sup>12</sup> and 295<sup>13</sup>, a Sāmānid dinar of 333,<sup>12</sup> and a couple of Kākwayhid dirhems of 418 and 419.<sup>14</sup>

Mardāwīj's pretended descentance from ancient Persian royalty and his successful military career led him to dream of the restoration of Sasanian Iran. We are told that in Iṣbahān he seated himself on a throne of gold and provided on a lower stage silver chairs for his generals; that he had ordered for himself a crown of gold ornamented with precious stones on the model of that of Khosrau Anūshirwān; that he had planned to rebuild the famous iwān of Kisra at Ctesiphon so that he could live in it as "King of Kings."<sup>15</sup> It is rather nice to and Iṣfahān. The identification resulted from a careful inspection of the site and the surrounding topography together with a thorough analysis of the descriptions preserved in the works of Arab and Persian geographers. I am indebted to Dr. Luther for furnishing me with a typescript of this important paper. Cf. G. C. Miles, "A hoard of Kākwayhid dirhems," *ANSMN* 12 (1966), p. 189 and the references there.

<sup>11</sup> Halil Edhem, *Qūrshūn Mühr Qatāloghu* (Constantinople, 1321), pp. 21-28.

<sup>12</sup> In the famous, still unsatisfactorily published Baghdad hoard.

<sup>13</sup> In the ANS. See G. C. Miles, *Rare Islamic Coins*, *ANSNM* 118 (1950), pp. 44-45.

<sup>14</sup> G. C. Miles, *ANSMN* 12 (1966), pp. 171, 189.

<sup>15</sup> For biographical details on the life and times of Mardāwīj, see al-Mas'ūdi, *Murūj*, IX, pp. 15-29; Miskawayh (ed. Margoliouth), I, pp. 161-163, 212, 229, 265, 275-276, 278-279, 310, 316, 379; Ibn al-Athīr, VIII, see index; the secondary authorities cited in note 2, above; and S. M. Stern, "The Early Ismā'īlī Missionaries in North-west Persia and in Khurāsān and Transoxania," *BSOAS* 23 (1960), pp. 56-90.

have in this unique dinar a little tangible memento of a quite remarkable man.

It is to be recalled that hitherto no coins of Mardāwij's brother and successor, Wushmagīr,<sup>16</sup> were known. The second addition to our record is in the form of a photograph sent me some years ago by Mr. Raymond J. Hebert, a private collector, and I had filed it away for future reference. Careful scrutiny of the print revealed the mint and date:

*Dirhem*, Wushmagīr, al-Rayy, 347 H./A.D. 958–9 (Formerly R. J. Hebert Coll.), PLATE XXIV, 2.

*Obv.:*

لا اله الا  
الله وحده  
لا شريك له  
نصر من الله

*Rev.:*

الله  
محمد رسول الله  
.... الملك  
وشمگیر  
وفتح قريب

*Margin:* بسم الله ضرب هذا الدرهم بالرى  
سنة سبع واربعين وثلثمائة ...

Possible word in outer margin,  
top left

*Margin:* Qur'ān IX, 33, but  
words between دين and  
المشركون omitted

Possible word in outer margin,  
top left

Unfortunately the first word of the *laqab* .... al-Mulk cannot be read. The sentence, نصر من الله وفتح قريب, "Help comes from Allah, and the victory is near" (Qur'ān LXI, 13) is carried over from the bottom of the obverse area to the bottom of the reverse.

My satisfaction in finding this, the only known coin of Wushmagīr, is further enhanced by the fact that it is an issue of the mint of Rayy, a city with which I have very close associations.<sup>17</sup> It is of

<sup>16</sup> His name is variously transliterated: Wushmagīr, Washmgīr, Vušmgīr, Vushmagīr, etc. The meaning evidently is "quail-catcher" (al-Mas'ūdi, *Murūj*, IX, p. 30; cf. F. Justi, *Iranisches Namenbuch* [Marburg, 1895], p. 359). For the biographical sketch of Wushmagīr, I have used Miskawayh, I, pp. 265, 280, 284, 316, 386 and 400, II, pp. 5–8, 119–120, 154, 190, 233 and 239; Ibn Isfandiyār, pp. 90–92, 217–225; Ibn al-Athīr, VIII, see index; and the secondary authorities.

<sup>17</sup> Three years of residence and excavation there with Eric F. Schmidt's Joint Expedition to Persia, and see my *Numismatic History of Rayy*, *ANSNS* 2 (1938).

especial interest to note the succession of Rayy coin issues about this time. Sāmānid dinars begin to be struck at al-Muḥammadiyah (the honorific name of Rayy) in 313 H. and continue almost without interruption through the year 333. In 334 the Būyid series begins with Rukn al-Dawlah, and with occasional Sāmānid interludes continues to 347, the year of our dirhem of Wushmagīr. I find nothing in the written histories to suggest what Wushmagīr was doing in this year (in fact there is a curious gap in the chronicles at this time with regard to events in central and eastern Iran); but our coin is testimony to the fact that for at least a part of that year he was in possession of Rayy, and it is noteworthy that he calls the city by its old name. In 348 the Būyid series resumes and continues with few interruptions into the first decade of the 5th century of the Hijrah.<sup>18</sup>

The occurrence of the Qur'ānic quotation نصر من الله وفتح قريب on our dirhem is not unique, but there is perhaps an ironic overtone in its use here. On a Sāmānid issue of Rayy (al-Muḥammadiyah) of 329<sup>19</sup> the same sentence occurs, and it is reasonable to suppose that it has specific allusion to the fact that in that year Wushmagīr was driven out of Rayy by the Sāmānid general. Again we find the words in the year 330 on a dirhem of the same mint.<sup>20</sup> In 347 Wushmagīr was getting his own back.

<sup>18</sup> For the Rayy coin issues between 313 and 407 H., see *NHR*, pp. 142–186. The following additions to the corpus, since it was published, are to be noted (only one specimen of each previously unpublished issue listed): Sāmānid, *AR* 317 (E. P. Newman Coll., ex R. W. Morris), *N* 321 (*Sumer X*<sup>2</sup>), *N* 323 (*Sumer X*<sup>2</sup>), *N* 324 (ANS), *N* 328 (Cairo), *N* 332 (*Sumer X*<sup>2</sup>), *N* 336 (*Sumer X*<sup>2</sup>); Būyid, *N* 336 (*Sumer X*<sup>2</sup>); Sāmānid, *N* 337 (*Sumer X*<sup>2</sup>), *AR* 337 (*RNB* 1870), *N* 339 (*Sumer X*<sup>2</sup>); Būyid, *N* 339 (Zambaur, *Münzprägungen*), *N* 342 (Zambaur, *Münzprägungen*); Sāmānid, *N* 343 (Zambaur, *Münzprägungen*); Būyid, *N* 345 (ANS), *N* 347 (*Sumer X*<sup>2</sup>), *N* 348 (*Sumer X*<sup>2</sup>), *N* 350 (*Sumer X*<sup>2</sup>), *AR* 351 ("portrait" coin, *ANSMN* 11, 1964), *N* 352 (*Sumer X*<sup>2</sup>), *N* 353 (*Sumer X*<sup>2</sup>), *N* 354 (*Sumer X*<sup>2</sup>), *N* 355 (*Sumer X*<sup>2</sup>), *N* 356 (*Sumer X*<sup>2</sup>), *AR* 356 (Copenhagen), *N* 357 (*Sumer X*<sup>2</sup>), *AR* 360 (?), *AR* 364 (E. P. Newman Coll., ex R. W. Morris), *N* 368 (BM), *AR* 373 (Zambaur, *Münzprägungen*), *N* 375 (Zambaur, *Münzprägungen*), *AR* 375 (E. P. Newman Coll., ex R. W. Morris), *N* 377 (*Sumer X*<sup>2</sup>), *N* 378 (*Sumer X*<sup>2</sup>), billon 387 (Zambaur, *Münzprägungen*), billon 388 (E. P. Newman Coll., ex R. W. Morris), billon 389 (ANS), *N* 390 (ANS), *N* 394 (ANS).

<sup>19</sup> *NHR*, no. 169.

<sup>20</sup> *NHR*, no. 170B.

Ten years later Wushmagīr was dead, and though he was spared assassination his end was a violent one. He died with his boots on. On the morning of Saturday 1 Muḥarram 357/Dec. 7, 967 he wanted to go for a ride but his astrologer, whose advice he usually took, persuaded him not to. Following the afternoon prayer some horses were brought for him to see, among them a fine black stallion from Bukhārā. He ordered it saddled, rode off a little ways and then, recalling his astrologer's warning, turned about. But as he did so his horse was attacked by a wild boar, Wushmagīr was unseated and gored to death.

Finally, a third surprise in the search for previously unpublished Ziyārid coins. Early in 1971 Mr. R. J. Hebert sent me for examination another coin in his collection. To my great delight, it turned out to be the first preserved coin of Minūchihr, Falak al-Ma'ālī, the son and successor of Qābūs. The coin is of billon and poorly preserved, but as it is unique it deserves a full description:

*Dirhem (billon)*, Falak al-Ma'ālī, Jurjān, date effaced (403–420 H./A.D. 1013–1029) (R. J. Hebert Coll.), 25 mm., 4.32 gm., PLATE XXVI, 23.

*Obv.:*

فلك (؟)  
لا اله الا  
الله وحده  
لا شريك له  
القادر بالله

*Rev.:*

محمد رسول الله  
الامير السيد  
فلك المعالي  
ابو منصور

*Margin:* Few traces

*Margin:* ... هذا الدرهم بجرجان .....

The debased silver is similar in appearance to that of the Būyid dirhems of Rayy of the late 4th and early 5th centuries of the Hijrah.

The Caliph al-Qādir came to the throne in 381/991; Minūchihr succeeded to the Ziyārid rule in 403 and died in 420; therefore our coin must date between 403 and 420. Ibn Isfandiyār tells us that the Caliph gave Minūchihr the title Falak al-Ma'ālī, "Star of the Heights," but he does not mention the date. It may well have been as early as 388 when, according to Ibn al-Athīr, Qābūs assigned to his son the governorship of Gurgān and Ṭabaristān. The fact that no Būyid

overlord is mentioned on our coin suggests that it may have been struck sometime before 407 when, after revolting against the Būyid Majd al-Dawlah at Rayy, Minūchihr returned to his allegiance. We are little informed about the personality of Minūchihr but we do know that, like his predecessors, he was a patron of men of letters: the well-known Persian poet Minūchihrī was named after him because he began his poetical career with odes addressed to Minūchihr. We have an intriguing glimpse of him in the year of his death when the great Maḥmūd of Ghaznah (one of whose daughters incidentally was married to Minūchihr) approached Gurgān on his way to the conquest of Rayy and Jibāl. Minūchihr fortified himself with his followers in an inaccessible mountain hideway, then bought off Maḥmūd with the immense sum of 400,000 dinars.<sup>21</sup> What, one wonders, has happened to this treasure? All that is left is this miserable but precious debased dirhem.

I append here in synoptic form a corpus of all Ziyārid coins that have come to my attention. The arrangement is chronological. All are dirhems with the exception of the unique dinar of Mardāwij. The following abbreviations are used in referring to published specimens:

- BM III* – S. Lane-Poole, *Catalogue of Oriental Coins in the British Museum*, Vol. III (London, 1877).  
*Blau, Odessa* – O. Blau, *Die orientalischen Münzen des Museums . . . zu Odessa* (Odessa, 1876).  
*Dannenberg* – “Der Denarfund von Jaroczin,” *ZfN* 1880, pp. 146–156.  
*Dorn & Gamazoff* – B. Dorn and Gamazoff, *Monnaies de différentes dynasties musulmanes* (St. Petersburg, 1881).  
*Erdmann* – F. Erdmann, *Numi Asiatici Musei Universitatis Caesareae Literarum Casanensis* (Kazan, 1834).  
*Fraehn, Nov. Symb.* – C. M. Fraehn, *Novae Symbolae ad rem Numariam Muhammedanorum* (Petropoli et Halis Saxonum, 1819).  
*Fraehn, Recensio* – C. M. Fraehn, *Recensio Numorum muhammedanorum* (Petropoli, 1826).

<sup>21</sup> For the life of Minūchihr (sometimes vocalized Manūchihr), the principal authorities are: Ibn Isfandiyār, pp. 227, 230–235; Ibn al-Athīr, IX, pp. 141, 238, 268, 357–358, 371–372, 394, 428, 509; Ibn Khaldūn, IV, p. 499; and cf. Browne, *A Literary History of Persia*, II, pp. 104, 156.

- Fraehn, *Gold. Horde* – C. M. Fraehn, *Die Münzen der Chane von Ulus Dschutschi's* . . . . (St. Petersburg, 1832).
- Fraehn, *Nov. Suppl.* – C. M. Fraehn, *Nova Supplementa ad Recensionem Numorum Muhammedanorum* (Petropoli, 1855).
- Grigoriev, *Ryazan* – V. V. Grigoriev, *Opisaniye kuficheskikh monet X vyeaka naydannikh v Ryazanskoy gubernii v 1839* (St. Petersburg, 1841).
- Iversen – “Drei Funde mittelalterlicher Münzen in Russland,” in *Berliner Blätter für Münz-, Siegel- und Wappenkunde*, VI (1871–1873), pp. 271–296.
- Lane-Poole, *Johnston etc.* – S. Lane-Poole, “Fasti Arabici,” *NC* 1892, pp. 160–173.
- Likhachev – A. Likhachev, “Tchistopolskiy klad iz kuficheskikh monet . . . v 1885 godu,” *ZVO*, II (1887), pp. 33–62.
- Lindberg – “Essai sur les monnaies . . . de la famille des Bouides et les princes de leur dépendance,” *Mém. Soc. Royale des Antiquaires du Nord*, 1844, pp. 193–271.
- Markov – A. K. Markov, *Inventarniy Katalog . . . Imperatorskavo Ermitazha* (St. Petersburg, 1896–1898).
- Moeller – J. H. Moeller, *De numis orientalibus in Numophylacio Gothano asservatis* (Gotha, 1826).
- Shertsl – R. Shertsl, *Opisanie medaley i monet Imp. Kharkovskavo Universiteta* (Kharkov, 1912).
- Soret à Fraehn – F. Soret, “Lettre à . . . de Fraehn . . .,” *Mém. Soc. Imp. d'Archéol.*, 1851.
- Stern – S. M. Stern, “The Coins of Āmul,” *NC* 1967, pp. 205–278.
- Topografya* – A. Markov, *Topografya kladov vostochnikh monet* (St. Petersburg, 1910).
- Tornberg – C. J. Tornberg, *Numi Cufici regii Numophylacii Holmiensis* (Uppsala, 1848).
- Tornberg, *Symbolae* I – C. J. Tornberg, *Symbolae ad rem numariam muhammedanorum ex Museo regio Holmiensi*, I (Uppsala, 1847).
- Vasmer 1914 – R. Vasmer, “Kuficheskiya moneti Pereyaslavskavo klada,” *Izvestiya Imperatorskoy Arkheologicheskoy Kommissii*, 51 (Petrograd, 1914), pp. 17–66.



Vasmer, *Spisok* – R. Vasmer, “Spisok monetikh nakhodok, ii . . .,”  
*Soobshcheniya, Gosudarstvennaya Akademiya Istorii Materyalnoy Kultury*, II (Leningrad, 1929).

Vasmer, *Dva Klada* – R. Vasmer, “Dva Klada kuficheskikh Monet,”  
*Gosudarstvennaya Akademiya Istorii Materyalnoy Kultury, Trudi Numiz. Komissii* (Leningrad, 1927).

Vasmer, *Staryi Dedin* – R. Vasmer, *Ein in Dorfe Staryi Dedin . . . Fund kufischer Münzen* (Stockholm, 1929).

322 H./A.D. 933–4

Karaj (*A*), Mardāwij, Abū'l-Qāsim and al-Qāhir  
 ANS; see above, p. 122. (PLATE XXIV, 1)

347 H./A.D. 958–9

Al-Rayy, Wushmagīr (PLATE XXIV, 2)  
 Formerly R. J. Hebert Coll.; see above, p. 125.

353 H./A.D. 964

Jurjān, details lacking  
 Moeller, p. 130, with ref. to Fraehn, “Zweiter Bericht.”

354 H./A.D. 965

Sāriyah (?), Wushmagīr, Rukn al-Dawlah and al-Muṭī‘  
 N. M. Lowick and J. D. F. Nisbet, *NC* 1968, p. 239.

356 H./A.D. 966–7

Amul, Ziyārid name effaced, Rukn al-Dawlah and al-Muṭī‘  
 Soret ā Fraehn, p. 26, no. 58.

357 H./A.D. 967–8

Amul, not described  
 Markov, p. 312, no. 1 = Stern, no. 47; Shertsl, no. 6371.  
 Amul, anonymous  
 Markov, p. 979, no. 64 = Stern, no. 46.

358 H./A.D. 968–9

Amul, Bisutūn, Rukn al-Dawlah and al-Muṭī‘  
 Fraehn, *Nov. Symb.*, p. 23, no. 5 = Moeller, p. 130 = Lindberg,  
 p. 234, no. 52; Markov, p. 312, nos. 6, 7; p. 978, no. 7a; Iversen,

p. 295, no. 72, misattributed to "Amid"; *Topografya*, p. 6, no. 33; Vasmer 1914 = Stern, no. 48.

Jurjān, Bīsūtūn, Rukn al-Dawlah and al-Muṭī'

Soret ā Fraehn, p. 66; Blau, *Odessa*, nos. 188-190; Iversen, p. 295, no. 66; Grigoriev, *Ryazan*, p. 40, no. 33; p. 43, nos. 34, 35; Markov, p. 312, no. 2-5; Vasmer 1914, 2 spec.; ANS, 2 spec. (PLATE XXIV, 3).<sup>22</sup>

Sāriyah, names not recorded

Markov, p. 978, no. 7b.

### 359 H./A.D. 969-70

Amul, Bīsūtūn, Rukn al-Dawlah and al-Muṭī'

Fraehn, *Nov. Suppl.*, p. 257; Blau, *Odessa*, no. 191 = Grigoriev, *Ryazan*, p. 43, no. 36; Dannenberg, p. 156, no. 108; Lindberg, p. 235, no. 53; Likhachev, p. 58, no. 35 = Stern, no. 49; Markov, p. 312, nos. 9, 10; p. 978, no. 10a; *Topografya*, p. 38, no. 212; Vasmer 1914 = Stern, no. 49; Westfälisches Landesmuseum, Münster (ex-Coll. Marcus Grube) (PLATE XXIV, 4).

Sāriyah, Bīsūtūn, [Rukn al-Dawlah and al-Muṭī']

Markov, p. 312, no. 8; p. 978, no. 8a; Vasmer 1914.

Mint lacking, Bīsūtūn, Rukn al-Dawlah and al-Muṭī'

Moeller, p. 130; Erdmann, p. 215.

### 360 H./A.D. 970-1

Amul, Bīsūtūn, Rukn al-Dawlah and al-Muṭī'

Vasmer, *Spisok*, p. 289, 2 spec. = Stern, no. 50.

Jurjān, Ḥāhīr al-Dawlah (Bīsūtūn) [Rukn al-Dawlah and al-Muṭī']

Markov, p. 312, no. 11; Vasmer 1914, 2 spec.

Mint lacking, Ḥāhīr al-Dawlah (Bīsūtūn), Rukn al-Dawlah and al-Muṭī'

Vasmer, *Staryi Dedin*, p. 5, no. 12.

<sup>22</sup> All the ANS Ziyārid coins (with the exception of the Mardāwīj dinar) come from a hoard which contained in addition to the Ziyārids, 60 Būyid, 4 Bāwandid, 1 Justānid (or Jasatānid) and one other Būyid vassal (Lashkarzād? b. al-Ḥasan) dirhems.

## 361 H./A.D. 971-2

Astarābād, Ḥahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭīʿ

Fraehn, *Gold. Horde*, p. 65, no. 454; Lindberg, p. 239, no. 58; Erdmann, p. 216; Markov, p. 312, no. 14; p. 978, nos. 14a-14c; ANS (PLATE XXIV, 5).

Amul, Ḥahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭīʿ  
Fraehn, *Nov. Symb.*, p. 23, no. 6 = Lindberg, p. 236, no. 57; Moeller, p. 130; Markov, p. 312, nos. 12, 13; p. 978, no. 13a [date?]; *Topografya*, p. 38, no. 312, 2 spec.; Vasmer 1914, 2 spec. = Stern, no. 51; Ashmolean Museum.

Jurjān, Ḥahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭīʿ

Markov, p. 978, no. 16a; ANS (PLATE XXIV, 6).

Sāriyah, Ḥahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭīʿ

Markov, p. 312, nos. 15, 16; Vasmer, *Staryi Dedin*, p. 5, no. 13; Eric P. Newman Coll. (PLATE XXIV, 7).

Mint lacking, Ḥahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭīʿ

ANS.

## 362 H./A.D. 972-3

Astarābād, Ḥahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭīʿ

Vasmer 1914, 2 spec.

Amul, Ḥahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭīʿ

Markov, p. 312, no. 18; p. 978, no. 18a; Cabinet des Médailles, Paris [date?] = Stern, no. 52.

Jurjān, Ḥahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭīʿ

Markov, p. 312, no. 17; Vasmer 1914; ANS (PLATE XXV, 8).

Sāriyah, [Ḥahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭīʿ]

Markov, p. 978, no. 18b; Vasmer 1914.

363 H./A.D. 973-4

Astarābād, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭīʿ

Fraehn, *Recensio*, p. 599, no. 3a = Lindberg, p. 239, no. 63; Erdmann, p. 218 = Lindberg, p. 239, no. 62; Lane-Poole, *Johnston* etc., p. 63; Markov, p. 312, no. 19; Vasmer 1914.

Amul, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭīʿ  
Moeller, p. 130; Markov, p. 322, no. 20; Vasmer 1914 = Stern, no. 53; ANS (mint?).

Jurjān, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭīʿ

Erdmann, p. 217 = Lindberg, p. 239, nos. 59, 60; Iversen, p. 295, no. 69; Markov, p. 312, no. 21; p. 313, nos. 22, 23; Vasmer 1914.

Sāriyah, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭīʿ

Moeller, p. 130; Lindberg, p. 240, no. 65; Lane-Poole, *Johnston* etc., p. 63 [363 or 366 H.?]; ANS (date?).

364 H./A.D. 974-5

Astarābād, Ṣahīr al-Dawlah (Bisutūn), [Rukn al-Dawlah and al-Muṭīʿ]

Markov, p. 978, no. 30b.

Amul, probably Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and Caliph?

Dorn & Gamazoff, p. 153, nos. 1, 2 (mint?); Vasmer 1914 = Stern, no. 54; Markov, p. 313, nos. 25-27; p. 978, no. 26a.

Jurjān, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭīʿ

Erdmann, p. 219 = Lindberg, p. 240, no. 66; Lane-Poole, *Johnston* etc., pp. 53, 63; Markov, p. 313, nos. 28-30; p. 978, no. 30a; Vasmer 1914, 2 spec.; ANS, 2 spec. (1-mint?) (PLATE XXV, 9).

Sāriyah, Ṣahīr al-Dawlah (Bisutūn), other names not recorded  
Markov, p. 313, no. 31.

Qūmis, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Ṭāʿiʿ  
Erdmann, p. 219 (mint given as Qūbis) = Lindberg, p. 240, no. 67 (mint probably Qūmis).

Hawsam, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Ṭā'ī'

Markov, p. 313, no. 24; S. Album Coll. (PLATE XXV, 10); specimen in trade, Hamburg.<sup>23</sup>

Mint lacking, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭī'

ANS, 3 spec. (1-mint?).

### 365 H./A.D. 975-6

Astarābād, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Ṭā'ī'

Markov, p. 313, nos. 32, 33; p. 978, no. 33a; Vasmer 1914; ANS, 2 spec. (PLATE XXV, 11).

Amul, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Ṭā'ī' BM III, no. 26; Markov, p. 313, nos. 34-36; Vasmer 1914 = Stern, no. 55; Berlin, no. 403/1912 = Stern, no. 55; ANS (PLATE XXV, 12).

Jurjān, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Ṭā'ī' Fraehn, *Nov. Symb.*, p. 24, no. 7 = Lindberg, p. 241, no. 68; Vasmer 1914; ANS (PLATE XXV, 13).

Sāriyah, Ṣahīr al-Dawlah (Bisutūn), other names not recorded Markov, p. 313, no. 37; Vasmer 1914: date?, 'Aḍud al-Dawlah and al-Ṭā'ī'.

### 366 H./A.D. 976-7

Astarābād, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Ṭā'ī'

Fraehn, *Recensio*, p. 599, no. 5; Tornberg, p. 248, no. 1; Tornberg, *Symbolae* I, p. 127, no. 37.

Amul, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Ṭā'ī' Erdmann, p. 220 = Lindberg, p. 241, no. 70; Markov, p. 313, nos. 42, 43; p. 978, no. 43a; Shertsl, no. 6374 = Stern, no. 56; Archaeological Museum, Teheran = Stern, no. 56; ANS (PLATE XXV, 14).

<sup>23</sup> I owe to Mr. Lutz Ilisch the information about four Ziyārid dirhems from a hoard offered by a dealer in Hamburg some years ago. The hoard also contained 1 Sallārid, 4 Sāmānid and 9 Būyid coins.

Jurjān, Ḥaḥīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Ṭā'ī<sup>24</sup>  
 Fraehn, *Nov. Symb.*, p. 24, no. 8; Dorn & Gamazoff, p. 153 =  
 Lindberg, p. 241, no. 69; Markov, p. 313, nos. 38-41; Vasmer,  
*Dva Klada*, p. 2; Vasmer 1914, 3 spec.; ANS, 3 spec. (PLATE  
 XXVI, 15).

Sāriyah, Ḥaḥīr al-Dawlah (Bisutūn), other names not recorded  
 Markov, p. 313, no. 44; Vasmer 1914, 2 spec.

Hawsam, Ḥaḥīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-  
 Ṭā'ī<sup>24</sup>

Markov, p. 978, no. 43b; 2 specimens in trade, Hamburg (see  
 note 22, above, from same pairs of dies) (PLATE XXVI, 16).

Mint lacking, Ḥaḥīr al-Dawlah (Bisutūn), Rukn al-Dawlah and  
 al-Ṭā'ī<sup>24</sup>

ANS.

### 367 H./A.D. 977-8

Astarābād, Qābūs, 'Aḍud al-Dawlah and al-Ṭā'ī<sup>24</sup>

Markov, p. 978, no. 52b; ANS (PLATE XXVI, 17).

Amul, Qābūs, 'Aḍud al-Dawlah and al-Ṭā'ī<sup>24</sup>

Markov, p. 979, nos. 52c, 52d; Cabinet des Médailles, Paris =  
 Stern, no. 59.

Jurjān, Qābūs, 'Aḍud al-Dawlah and al-Ṭā'ī<sup>24</sup>

Markov, p. 314, nos. 50, 52; p. 978, no. 52a; Vasmer 1914; ANS  
 (PLATE XXVI, 18).

Sāriyah, Qābūs, 'Aḍud al-Dawlah and al-Ṭā'ī<sup>24</sup>

Vasmer 1914; ANS (PLATE XXVI, 19).

### 368 H./A.D. 978-9

Astarābād, Qābūs, 'Aḍud al-Dawlah and al-Ṭā'ī<sup>24</sup>

Markov, p. 979, no. 56a; ANS (date?, mint?).

Amul, Qābūs, 'Aḍud al-Dawlah and al-Ṭā'ī<sup>24</sup>

Markov, p. 314, nos. 55, 56; *Topografiya*, p. 6, no. 33; p. 38, no. 212;  
 ANS (PLATE XXVI, 20) = Stern, no. 60.

Jurjān, Qābūs, 'Aḍud al-Dawlah and al-Ṭā'ī<sup>24</sup>

<sup>24</sup> "Arrajān" or "Jurjān". The line drawing shows it clearly to be Jurjān.  
 Arrajān, which would be highly unlikely in any case because of its location,  
 should be deleted as a Ziyārid mint.

Moeller, p. 130 (mint?); Markov, p. 314, nos. 53, 54; Ashmolean Museum, ex-Thorburn Coll.; ANS, 5 spec. (PLATE XXVI, 21).

Sāriyah, Qābūs, 'Aḍud al-Dawlah and al-Ṭā'i'

Vasmer 1914; ANS (PLATE XXVI, 22).

Mint lacking, Qābūs, 'Aḍud al-Dawlah and al-Ṭā'i'  
BM III, no. 28.

369 H./A.D. 979–80

Amul, Qābūs, 'Aḍud al-Dawlah and al-Ṭā'i'

Markov, p. 314, nos. 57–59; *Topografya*, p. 41, no. 229 = Stern, no. 61; Vasmer 1914.

36X H./A.D. 971–978

Astarābād, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭī'

Blau, *Odessa*, no. 192; Markov, p. 313, nos. 46, 47.

Amul, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭī'  
ANS (mint?).

Amul, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Ṭā'i'  
Specimen in trade, Hamburg (see note 23, above).

Jurjān, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭī'  
ANS.

Sāriyah, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Ṭā'i'  
Markov, p. 313, no. 45; ANS (mint?).

Mint lacking, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭī'  
ANS.

Date effaced (357–367 H./A.D. 971–978)

Astarābād, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭī'

Grigoriev, *Ryazan*, p. 44, no. 37.

Mint lacking, Ṣahīr al-Dawlah (Bisutūn), Rukn al-Dawlah and al-Muṭī'

BM III, nos. 25, 27 (no Wushmagīr).

Date effaced (367–403 H./A.D. 978–1013)

Astarābād, Qābūs, 'Aḍud al-Dawlah and al-Ṭā'i'

Erdmann, p. 226.

Jurjān, Qābūs, 'Aḍud al-Dawlah and al-Ṭā'i'  
Moeller, p. 130; Erdmann, p. 225; Markov, p. 314, no. 60; p. 979,  
no. 63, 2 spec.

370 H./A.D. 980-1

Jurjān, Qābūs, 'Aḍud al-Dawlah and al-Ṭā'i'  
Dorn & Gamazoff, p. 154, no. 4.

395 H./A.D. 1004-5

Jurjān, Anonymous, al-Qādir  
Markov, p. 979, no. 65, 3 spec.

3XX H./A.D. 991-1009

Jurjān, Anonymous, al-Qādir  
Markov, p. 979, no. 66, 2 spec.

Date effaced (403-420 H./A.D. 1013-1029)

Jurjān, Falak al-Ma'āli and al-Qādir  
R. J. Hebert Coll., see above, p. 127 (PLATE XXVI, 23).





## ANOTHER KĀKWAYHID NOTE

(PLATE XXVII)

GEORGE C. MILES

In 1938 I published a corpus of Kākwayhid coins<sup>1</sup> known to exist at that time. Subsequently, in 1960 and 1966, a few additions to the corpus were contributed.<sup>2</sup> Since 1966 a number of other Kākwayhid coins have come to my attention, and these are the subject of this brief communication.

To summarize the contents of the two supplementary articles, the following dates and mints were added to the basic corpus:

In *ANSMN* 9:

Iṣbahān, Ⲡ, 410 H.; lead seals, 430 H. and date effaced; billon dirhem, date effaced.

Al-Muḥammadiyah, billon dirhem, 409 (?) H.; Ⲡ 421, 424 H. and date effaced (the latter two with the Ghaznavid Mas'ūd as overlord).

Hamadhān, Ⲡ, 421 H.

Mint effaced, billon dirhem, 4XX H.

In *ANSMN* 12:

Asadābād, Ⲡ, 416 H.

Qirmīsīn, Ⲡ, 41X H.

Al-Qaṣr, Ⲡ, 415 H.

Al-Karaj, Ⲡ, 418 H.

Māh al-Kūfah, Ⲡ, 418 H.

Hamadhān, Ⲡ, 416 H. (variety)

Mints effaced, Ⲡ, 416, 417, 418, 41X and XXX H.

In addition to the great hoard of dinars which will be discussed below, the following dirhems and dinars have come to my attention:

Asadābād, Ⲡ, 41X H. (Cabinet des Médailles, Paris, 1969, communication of R. Curiel).<sup>3</sup>

<sup>1</sup> "The Coinage of the Kākwayhid Dynasty," *Iraq* V (1938), pp. 89-104.

<sup>2</sup> "Notes on Kākwayhid Coins," *ANSMN* 9 (1960), pp. 231-236; "A Hoard of Kākwayhid Dirhems," *ANSMN* 12 (1966), pp. 165-193.

<sup>3</sup> I wish to thank Mrs. Helen Mitchell Brown, Messrs. Stephen Album, Ch. A. Azami, A. D. H. Bivar, Raoul Curiel, Raymond J. Hebert, N. M. Lo-

Asadābād, *AR*, 421 H. (*BMCat.* III, 43 = no. 64 in the basic corpus, later identified; and Raymond J. Hebert collection).

PLATE XXVII, 1

Iṣbahān, *AR*, 409 H. (27 mm., 4.24 gm., British Museum, 1971).

PLATE XXVII, 2

*Obv.:*

لا اله الا الله  
محمد رسول الله  
القادر بالله  
محمد

*Rev.:*

☉  
الله احد الله  
الصمد لم يلد و  
لم يولد ولم يكن  
له كفوا احد

*Margin:*

بسم الله ضرب هذا الدرهم باصهبان سنة  
تسع واربع مائة

*Margin:* Qur'ān IX, 33.

Iṣbahān, *AR*, 410 H. (26 mm., 2.61 gm., A. H. Morton collection). As this differs from the ANS specimen of the same year published in *ANSMN* 9, it is here described in full. It must have been struck early in 410 H., before the specimen in the ANS collection.

PLATE XXVII, 3

*Obv.:*

○  
لا اله الا الله  
وحده لا شريك له  
محمد بن دشمنزار

*Rev.:*

(?) ايد  
محمد رسول الله  
القادر بالله  
ملك الملوك  
شمس الدولة  
به

*Margin:*

بسم الله ضرب هذا الدرهم باصهبان سنة  
عشر واربع مائة

*Margin:* Qur'ān IX, 33.

Iṣbahān, *AR*, 411 H. (*Seaby's Bulletin*, April 1962, no. W186).

Iṣbahān, *AR*, 413 H. (Dr. N. Sharghi collection, communicated by Ch. A. Azami).

wick, A. H. Morton, Y. Nahapetian and J. G. Pollard for their kindness in communicating to me information about coins in their collections or charge, and for plaster casts and photographs. Richard W. Bulliet and Michael Bates assisted with the analysis of parts of the dinar hoard.

*Obv.:*

لا اله الا الله  
محمد رسول الله  
القادر بالله  
مجد الدولة  
محمد بن دشمنزار

*Rev.:*

خراج  
الله احد الله  
الصمد لم يلد و  
لم يولد ولم يكن  
له كفوا احد

*Margin:*

بسم الله .... هذا الدرهم باصبيان  
سنة ثلث عشرة ....

*Margin:* Qur'ān IX, 33

(mostly preserved).

Iṣbahān, R, 413 H. (Y. Nahapetian collection).

Iṣbahān, R, 414 H. (British Museum, gift of H. Rabino, 1949).

Iṣbahān, R, 416 H. (Y. Nahapetian collection).

Iṣbahān, R, 417 H. (Stephen Album collection).

PLATE XXVII, 4

*Obv.:*

لا اله الا الله  
... بالله  
مجد الدولة  
وكهف الامة

*Rev.:*

محمد رسول الله  
عضد الدين  
علا الدولة  
وفخر الملة  
وتاج الامة  
ابو جعفر

*Inner margin:*

... احد الله الصمد ... يلد ولم يولد ولم يكن  
له كف... ..

*Margin:* Qur'ān IX, 33.*Outer margin:*

بسم الله ضرب هذا الد... باصبيان سنة  
سبع عشرة و... مائة

Iṣbahān, R, 430 H., recognizing Ghaznavid Mas'ūd (Y. Nahapetian collection).

Iṣbahān, A, 438 H. (Ch. A. Azami collection).

*Obv.:*

٢٨  
لا اله الا الله  
وحده لا شريك له  
السلطان المعظم  
طغريك

*Rev.:*

شمس  
محمد رسول  
الله القائم  
بامر الله  
الامير فرامرز

*Margins: ?*Iṣbahān, *A*, [44]2 H. (Y. Nahapetian collection).Burūjird, *Æ*, XXX H., Muḥammad b. Dushmanzār (Y. Nahapetian collection).

Sulaimuh (or Sulaimūh), *Æ*, 409 H. (W. Tiesenhausen, "Mélanges de Numismatique Orientale," *RNB* 1875, p. 336, no. 92; cf. E. von Zambaur, *Die Münzprägungen des Islams*, p. 147, who deciphered the mint name and quoted Ibn al-Athīr IX, p. 147, for the locality).

Jurbādhaqān, *A*, 413 H. (25 mm., 4.64 gm., British Museum, August, 1971).

PLATE XXVII, 5

*Obv.:*

محمد بن  
لا اله الا الله  
وحده لا شريك له  
دشمنزار  
ح

*Rev.:*

الله  
محمد رسول الله  
القادر بالله  
شاهان شاه  
مجد الدولة  
ابريز

*Margin:*

بسم الله ضرب هذا الد... بجر بادقان  
سنة ثلث عشرة واربع مائة

*Margin: Qur'ān IX, 33*

(mostly preserved).

Mr. N. M. Lowick has written me that "a series of indentations has been painstakingly executed with a file all round the edge, giving the effect of milling. I do not know whether this was done to prevent clipping, or for some other reason."

The only previously known Kākwayhid coins of the mint of Jurbādhaqān, to my knowledge, are dirhems of 411 H. (G. C. Miles, *Iraq V*, p. 92, no. 4), 413 H. (Zambaur, *Contributions III*, pp. 142-143, no. 474), and 424 H. (Zambaur, *Münzprägungen*, p. 96, not described,

formerly in Zambaur's private collection). For the word *ibrīz*, beneath the reverse area, see the note on the next coin, below.

Al-ʿAskar al-Manṣūr, *N*, 415 H. (22 mm., 3.61 gm., Stephen Album collection). PLATE XXVII, 6

*Obv.:*

لا اله الا الله  
وحده لا شريك له  
القادر بالله  
محمد بن دشنزار

*Rev.:*

الله  
محمد رسول الله  
مجد الدولة  
امير الامرا  
سما الدولة  
ابريز

*Margin:*

بسم الله ضرب هذا الدينار بالعسكر المنصور  
سنة خمس عشرة واربع مائة

*Margin:* Qurʾān XXX, 3-4.

I have not been able to identify the mint, al-ʿAskar al-Manṣūr. It might be an ephemeral alternative name for one of the known Kākwayhid mints, but more likely perhaps would be an identification with a fortress near Iṣbahān in which Muḥammad b. Dushmanzār in the year 414 H. imprisoned the Daylamite amirs whom he had captured in Hamadhān, Dīnawar and Sābūr-Khwāst.<sup>4</sup> This is the second recently discovered Kākwayhid mint the identification of which presents problems; the other is al-Qaṣr, possibly Qaṣr al-Luṣūṣ, where dirhems were struck in the same year, 415 H.<sup>5</sup>

The word beneath the reverse area, *ibrīz*, means "pure gold" (Lane, s.v. برز) and derives from the Greek ὀβρυζον, abbreviated OB on Byzantine solidi. Miskawayh (ed. Margoliouth), II, p. 31, tells us that the Ḥamdānid Nāṣir al-Dawlah struck *ibrīzi* dinars, reportedly of unexcelled fineness.<sup>6</sup> The word *ibrīz* occurs on a number of dinars; the identification with *obryzon* was first proposed by E. T. Rogers with reference to a Ḥasanwayhid dinar of Sābūr-Khwāst, 397 H.<sup>7</sup>

<sup>4</sup> Ibn al-Athīr (ed. Tornberg), IX, p. 331.

<sup>5</sup> See *ANSMN* 12, pp. 187-188.

<sup>6</sup> Cf. M. Canard, *Histoire de la Dynastie des H'amdānides*, I (Paris, 1953), pp. 438-439.

<sup>7</sup> E. T. Rogers, *The Coins of the Ṭūlūni Dynasty* (London, 1877), p. 15.

Al-Karaj, *Æ*, 41(6?) H. (British Museum, gift, 1921).

A tiny coin, 12 mm., 0.50 gm.

PLATE XXVII, 7

*Obv.*:

لا اله الا الله  
محمد رسول  
الله القادر با الله  
مجد الدولة  
ح ❖

*Rev.*:

عصف الدين  
ابو جعفر  
حسام امير  
المؤمنين

*Margin:*

بسم الله ضرب هذا الدرهم بالكرج سنة  
ست (?) عشرة واربعمئة

*Margin:*

... لامير سما الدولة وسنا الملة ....

Māh al-Kūfah, *Æ*, XXX H. (Fitzwilliam Museum, Cambridge).

*Obv.*:

لا اله الا الله  
محمد رسول الله  
القادر بالله

*Rev.*:

U  
محمد بن  
دشمنزار

*Inner margin:*

الله احد الله الصمد etc.

*Inner margin:*

شاهانشاه مجد الدولة امير الامرا ...

*Outer margin:* Qur'ān IX, 33. *Outer margin:*

بسم الله ضرب هذا الدرهم بماء الكوفة ....

Hamadhān, *Æ*, 416 H. (29 mm., 4.01 gm., E. P. Newman Coll.).

Similar to *ANSMN* 12, no. 24 (different dies).

Hamadhān, *Æ*, 417 H. (Ch. A. Azami collection).

*Obv.*:

لا اله الا الله  
القادر بالله  
مجد الدولة  
وكهف الامة  
ابريز

*Rev.*:

الله  
محمد رسول الله  
عصف الدين  
علا الدولة  
وفخر الملة  
وتاج الامة  
ابو جعفر

(Marginal legends not recorded)

Hamadhān, *Æ*, 418 H. (26 mm., 4.18 gm., Ashmolean Museum, Oxford).

*Obv.:*

لا اله الا الله  
 وحده لا شريك له  
 القادر بالله  
 مجد الدولة  
 بويه

*Rev.:*

الله  
 محمد رسول الله  
 عضد الدين [ين] علا  
 الدولة وفخر  
 الملة وتاج الامة  
 ابو جعفر

*Inner margin:*

امير الامرا سما الدولة سنا الملة ابو الحسن  
 بن شمس الدولة

*Margin:*

محمد رسول الله ....

*Outer margin:*

بسم الله ضرب هذا الدينار بهمدان سنة  
 ثمان عشرة واربع مائة

Mint effaced, *AR*, 413 H. (Dr. N. Sharghi collection, communicated by Ch. A. Azami).

*Obv.:*

لا اله الا الله  
 محمد رسول الله  
 القادر بالله  
 مجد الدولة  
 امير الامرا [سما]  
 الدولة

*Rev.:*

قل هو  
 الله احد الله  
 الصمد لم يلد و  
 لم يولد ولم يكن  
 له كفوا احد  
 محمد بن دشمزار  
 ◎ ◎

*Margin:*

.... هذا الدرهم ... ثلث عشرة واربع مائة

*Margin:* Qur'ān IX, 33

(partially preserved).

After this article had gone to the printer Mr. A. H. Morton in Teheran kindly communicated to me information about the following additional specimens: [Iṣbahān], *AR* (plated?), 4XX H. (cf. *ANSMN* 12, no. 2); [Burūjird?], *AR*, XXX H. (cf. *ANSMN* 12, nos. 44-45, var., and p. 192); mint effaced, *AR*, XXX H. (closest parallel, Iṣbahān, *N* 427 H., *Iraq* V, no. 3); mint effaced, *AR* (billon), 4XX H. (cf. *ANSMN* 9, no. 69a).

A part of the great dinar hoard mentioned above (p. 139) first came to my attention in 1968 when a dealer brought some 80 speci-



mens (along with other miscellaneous Islamic dinars) to me for inspection. Later in the same year, and subsequently in 1970 and early in 1971, the same person showed me large quantities of dinars, obviously from the same hoard, and I was able to take some notes on them. Barring the possibility that some of the dinars were shown me twice, the total number I have seen is 655; and the owner tells me there were more, perhaps more than a thousand. I have not been able to learn anything about the circumstances of the find nor its exact locality other than that it was reported to have been unearthed somewhere near Iṣfahān. The contents of the portion of the hoard which I have seen was as follows:

Iṣbahān, 432 H.	2 specimens
Iṣbahān, 434 H.	9 specimens
Iṣbahān, 435 H.	
a) with word شمس above reverse area	437 specimens
b) without word شمس above reverse area	207 specimens
	<hr/> 655 specimens

The 434 H. specimens are from two different pairs of dies; all the 435 H. type (a) specimens are from the same pair of dies; and all the 435 H. type (b) specimens are from the same pair of dies. The vast majority of 435 H. type (a) are large flan coins, approximately 29 mm. in diameter; the specimens of type (b) are always smaller, approximately 23 mm. The weights are extremely irregular, type (a) ranging from as low as 1.68 grams to as high as 4.86 grams (one specimen, exceptionally of small flan, actually weighing 5.00 grams), the majority in the 2 and 3 gram range; type (b) from 1.60 grams to 4.90 grams. All specimens are virtually uncirculated; where inscriptions are faint, the cause is weak striking.

Burial date of the hoard was in all probability 435 H./A.D. 1043-4. One might perhaps in some way connect the circumstance of the burial with Abū-Manṣūr Farāmūr's defeat by the Būyid Abū-Kālījār 'Imād al-Dīn at Abarqūh (some 140 miles southeast of Iṣfahān) in 435 H.<sup>8</sup>

<sup>8</sup> See C. E. Bosworth's valuable article "Dailamīs in Central Iran: the Kākūyids of Jibāl and Yazd," *Iran* VIII (1970), p. 83. In this article Bosworth makes full use of the Kākwayhid coins known at the time of writing.

Specimens from the hoard, now in the collection of the American Numismatic Society, are described below:

*Dinar*, Muḥammad b. Dushmanzār, Iṣbahān, 432 H./A.D. 1040-1.  
*∅* 23 mm., 3.75 gm. PLATE XXVII, 8

*Obv.:*

نصر  
 لا اله الا  
 الله وحده  
 لا شريك له  
 •

*Rev.:*

نصر  
 محمد رسول  
 الله القائم بامر  
 الله محمد بن  
 دشمنزار

*Margin:*

بسم الله ضرب هذا الدينار باصباحان سنة  
 اثنين وثلاثين واربع مائة

*Margin:* Qur'ān IX, 33.

The word above the obverse and reverse areas is undoubtedly *naṣr*, not *badr* or *bakr*, as I read it on a dirhem (*ANSMN* 9, p. 235; the speculation there on p. 236 about the identity of "Badr" can be ignored).

*Dinar*, Farāmurz and Toghrol Beg, Iṣbahān, 434 H./A.D. 1042-3.  
*∅* 25 mm., 4.44 gm. PLATE XXVII, 9

*Obv.:*

فتح  
 لا اله الا الله  
 وحده لا شريك له  
 السلطان المعظم  
 طغرلبيك

*Rev.:*

الله  
 محمد  
 رسول الله  
 القائم بامر الله  
 الامير فرامرز

*Margin:*

بسم الله ضرب هذا الدينار باصباحان سنة  
 اربع وثلاثين [واربع مائة]

*Margin:* Qur'ān IX, 33.

*Dinar*, Farāmurz and Toghrol Beg, Iṣbahān, 435 H./A.D. 1043-4.  
 Type (a). *∅* 28 mm., 4.02 gm.<sup>9</sup> PLATE XXVII, 10

<sup>9</sup> Two specimens of this issue are in the collection of Dr. N. Sharghi (communication from Mr. Ch. A. Azami).

*Obv.:*

٢٨  
لا اله الا الله  
وحده لا شريك له  
السلطان المعظم  
طفربك

*Rev.:*

شمس  
محمد رسول  
الله القائم  
بامر الله  
الامير فرامرز

*Inner margin:*

بسم الله ضرب هذا الدينار باصهان سنة  
خمس وثلثين واربع مائة

*Margin:* Qur'ān IX, 33.

*Outer margin:* Qur'ān XXX,  
3-4

Illustrated and briefly described in *Annual Report of the American Numismatic Society*, 1968, p. 10, pl. II, 5.

*Dinar*, Farāmūrḡ and Ṭoghrul Beg, Iṣbahān, 435 H./A.D. 1043-4.  
Type (b). *A* 23 mm., 2.91 gm.

*Obv.:*

٢٨  
لا اله الا الله  
وحده لا شريك له  
السلطان المعظم  
طفربك

*Rev.:*

٢٨  
محمد  
رسول الله  
القائم بامر الله  
الامير فرامرز

*Margin:*

بسم الله ضرب هذا الدينار باصهان سنة  
خمس وثلثين واربع مائة

*Margin:* Qur'ān IX, 33.

## NOTES ON SOME ISMĀ'ILĪ COINS FROM YEMEN

MICHAEL L. BATES

In 1964 N. M. Lowick published a series of Ismā'īlī dinars from 11th- and 12th-century Yemen which add materially to our knowledge of the Zurai'īd and Ṣulayhīd dynasties of that country.<sup>1</sup> Although Lowick added to his excellent description of the coins a discussion of their historical background, a great deal more can still be said about the significance of these coins as evidence for the internal history of the Yemeni Ismā'īlīs and their relations with the Fāṭimid caliphate of Egypt.

In the late 11th and early 12th centuries, the period in which these coins were minted, the Ismā'īlī movement was divided by two great schisms on the succession to the imamate. The first group to renounce their allegiance to the Fāṭimid caliphs were the Nizārī loyalists, in 487 H./A.D. 1094. This group became the movement known in the West as the Assassins, which evolved finally into the sect headed today by the Aghā Khān. The second secession, which originated in 524/1130, was that of the Ṭayyibī loyalists in Yemen, who also survive today, as living communities in Yemen and especially in the Indian sub-continent. The effects of these two schisms in Yemen have been almost completely unknown until comparatively recently. Much work has been done on the subject in the past thirty years, but even so, the subject remains somewhat obscure.

The reason for this obscurity is mainly that the Ṭayyibī loyalists, the sole heirs of the intellectual and historical traditions of the Yemeni Ismā'īlīs, have down through the centuries been extremely reluctant to allow the works in their possession to be studied by outsiders. As a result, the history of the Ismā'īlīs in Yemen (as to a large extent elsewhere) has had to be written mainly from the historical evidence of their Sunnī Muslim enemies, who were not

<sup>1</sup> N. M. Lowick, "Some Unpublished Dinars of the Ṣulayhīds and Zurai'īds," *NC* 1964, pp. 261-70.

only hostile to the Ismā'īlī movements but also quite ignorant of the doctrinal issues which divided them. For a long time, practically the only source for Yemen in the 11th and 12th centuries available to most Western historians has been the *Ta'rikh al-yaman* of the Sunnī 'Umāra b. Abī'l-Ḥasan al-Ḥakamī, as edited by H. C. Kay in 1892.<sup>2</sup>

It is true, of course, that 'Umāra is the most important single writer for the history of Yemen up to the middle of the 12th century, while Kay's edition with its copious and intelligent notes remains constantly useful. 'Umāra, however, as a Sunnī, was ill-informed on the internal history of the Ismā'īlī *da'wa*<sup>3</sup> in Yemen, which made a point of not discussing its divisions before outsiders (as will appear below). Moreover, 'Umāra wrote his history for an audience of high officials in the service of the Fāṭimid caliph in Cairo.<sup>4</sup> For this reason alone he would not have mentioned anything he may have known about the challenge to the Egyptian dynasty's legitimacy put forward by the adherents of al-Ṭayyib. Kay himself, like other scholars of his time, knew scarcely anything about this controversy. 'Umāra's evidence is also to be mistrusted on other grounds. The additional documentation which has accumulated since the publication of his history shows him to have been often careless about dates

<sup>2</sup> Henry C. Kay, *Yaman: Its Early Medieval History*, by Najm ad-Din 'Umārah al-Ḥakamī ... (London, 1892). The work includes the text of 'Umāra's history, from a then unique manuscript, as well as excerpts from the histories of the Yemeni al-Janadi and Ibn Khaldun, with English translations of these texts and extensive notes and commentary, including excerpts from other unpublished sources. The remarks of W. Robertson Smith (*JRAS* 1893, pp. 181–217) on Kay's work and Kay's response (*JRAS* 1893, pp. 218–36) should also be consulted.

<sup>3</sup> Perhaps the best translation of the word *da'wa*, as a Shi'i technical term, is "summons," but for the Ismā'īlīs it also refers generally to their movement and particularly to the administrative organization of the movement responsible for missionary and propaganda activities. The related term *dā'i*, "a summoner," which is used frequently in this article, refers in general to a member of this organization, but as a title refers specifically to the head of the *da'wa* in a given region. The Sulaihid queen al-Sayyida, mentioned below, was never given the title *dā'i*, but during her lifetime was, nevertheless, the actual head of the Yemeni *da'wa*, with the title *hujja*, "proof" (of the legitimacy of the imam).

<sup>4</sup> On the circumstances of the composition of 'Umāra's history, see its introduction (p. 1) and 'Umāra's *Kitāb al-nukat* (ed. H. Derenbourg), *'Oumāra du Yemen, sa vie et son oeuvre*, Publications de l'École des Langues Orientales Vivantes, IV<sup>e</sup> série, Vols. 10–11 (Paris, 1897–1904), 1, pp. 92–93.

and haphazard in his accounts of events. In addition, the available manuscripts of his history are corrupted by the interpolations of copyists. For all these reasons, 'Umāra's writings can seldom be uncritically accepted without comparison with other available historical evidence.

Much new literary and epigraphical evidence has appeared since Kay's work was published. Perhaps the most important development has been that some historians in recent years have been able to gain access to the materials preserved by the Ṭayyibīs, and to publish studies bringing to light this historical tradition. The works of W. Ivanow, Ḥusain Hamdānī, and S. M. Stern have been particularly important in this regard.<sup>5</sup> Much remains to be done, especially since scarcely any of these sources have actually been published. This, and the inherent faults as historical evidence of a body of literature which by its very nature is biased and tendentious, leaves many aspects of the history of the Yemeni Ismā'īlīs and their relations to the Egyptian caliphate unclear. Nevertheless, our present picture of this history is quite different in many respects from that presented by 'Umāra and Kay.

It is against the background of this new picture that the coins published by Lowick must be considered in order to appreciate fully their significance. In this new context the Ismā'īlī coinage becomes more important than it would seem to be in the light of 'Umāra's testimony alone, both in substantiating in certain respects present-day opinion, and in suggesting new problems which have not been previously suspected. Yet it must be admitted that the evidence of the coins is sometimes more valuable for what is omitted than for what is actually written. The testimony is ambiguous and often has the effect of raising more questions than are answered. It is nevertheless useful to examine these problems, and to attempt, at least, to provide some answers to them, in the hope of providing a basis for future numismatic and documentary research.

<sup>5</sup> W. Ivanow, *Ismā'īlī Literature. A Bibliographical Survey* (London, 1958; Teheran, 1963) cites his earlier work on the subject; Ḥusain b. Faiḍ Allāh al-Hamdānī, *al-Ṣulaiḥiyyūn wa'l-ḥaraka al-fāṭimīya fi'l-yaman* (al-Qāhira, 1955); S. M. Stern, "The Succession to the Fatimid Imam al-Āmir, the Claims of the Later Fatimids to the Imamate and the Rise of Ṭayyibī Ismailism," *Oriens* 1951, pp. 193-255.

## THE NIZĀRĪ SECESSION

The secession of the Nizārī Ismāʿīlīs, or Assassins, the first of the two schisms mentioned above, originated in 487/1094, with the death of the Fāṭimid caliph al-Mustanṣir. He had designated as his heir his eldest son, Nizār, but his wazir al-Afḍal ignored this nomination, instead selecting as caliph a younger son of al-Mustanṣir who was al-Afḍal's son-in-law. Al-Afḍal was then able to put down the rebellion which Nizār raised and had him executed. Nevertheless, the de facto caliph, al-Mustaʿlī, was rejected by most of the adherents of the Fāṭimids in the east, beyond the boundaries of their empire. For doctrinal reasons, these eastern Ismāʿīlīs refused to believe that Nizār was dead and insisted that he alone could be the rightful imam.<sup>6</sup> A new and separate Ismāʿīlī movement was thereby created.<sup>7</sup> In Yemen, on the other hand, the dispute seems, on the basis of the literary sources, to have had little importance. The Ṣulaiḥid queen al-Sayyida and the Yemeni Ismāʿīlīs whom she led appear to have accepted the legitimacy of al-Mustaʿlī without question.<sup>8</sup>

There is, however, an anomaly in the earliest series of coins published by Lowick, numbers 2–33, which suggests that the attitude of al-Sayyida toward the new caliph may have been more reserved than would appear from the histories written by the adherents of

<sup>6</sup> The semantic distinction between the terms "imam" and "caliph" is a complex and subtle one. Generally, while both terms refer to the head of the Muslim community, the term "imam" has to do more with the religious and doctrinal aspect of his leadership, while "caliph" refers more to his political role. Needless to say, the Fāṭimid caliph (or imam) was not recognized by all Muslims.

<sup>7</sup> On this schism and its consequences, see Marshall G. S. Hodgson, *The Order of Assassins* (s'Gravenhage, 1955) or his summary of this work, brought up to date, "The Ismāʿīlī State," Ch. 5 of *The Cambridge History of Iran*, 5, *The Saljuq and Mongol Periods* (Cambridge, 1968), and also Bernard Lewis, *The Assassins: A Radical Sect in Islam* (New York, 1968).

<sup>8</sup> See Ḥasan Ibrāhīm Ḥasan, *Ta'rīkh al-daula al-fāṭimīya* (al-Qāhira, 1958), pp. 171–2, 246–7. The dispute is apparently not even mentioned by the Yemeni Ismāʿīlī sources, and does not appear in the Ismāʿīlī historian Ḥusain Hamdānī's *al-Ṣulaiḥīyūn*. The transfer of allegiance may have seemed smooth only because the surviving historical sources which would have dealt with it all originate from the adherents of the Mustaʿlīan succession.

al-Musta'li and his successors.<sup>9</sup> None of these "malikī" dinars, minted in Aden from 486 to 529 (1093-1135) by the Banū Mas'ūd (cousins of the Zurai'ids), bears the name of the caliph al-Musta'li, and they do not begin to carry the name of his successor al-Āmir until 508/1114-15, thirteen years after that caliph's accession (495/1101) and more than twenty years after the death of al-Mustanşir.<sup>10</sup> This might be attributed to carelessness, but since the dies which carry al-Mustanşir's name were changed often, it would seem clear that the retention of his name was deliberate. A possible explanation might be that the Ismā'ilīs of Yemen hesitated to make a formal public commitment to al-Musta'li and his son because of the grave doubts which had been raised as to the legitimacy of their succession. It is true that the preserved correspondence between the Ṣulaiḥids and the Fāṭimids shows that the Ṣulaiḥids did not cease to maintain at least superficially correct relations with the head-

<sup>9</sup> The ANS possesses two unpublished dinars from this series which may be added to the corpus. One, minted in 507, is identical in inscriptions and type to Lowick's No. 14 (22 mm., 2.41 gm.). The second, struck in 529, is described in note 17 below. Mr. Lowick has informed me that the British Museum has acquired some new date variants of the coins of this series. They are listed herewith, in the second and third columns, the mysterious isolated letters which appear above the obverse and reverse field inscriptions of many of the coins. All, of course, are from the Aden ('Adan) mint.

Date	Above obverse	Above reverse	Diameter (mm.)	Weight (gm.)
499	س	—	21	2.37
510	ع س	س	22	2.35
511	ع س	س	23	2.34
513	ع س	—	22	2.35
518	—	—	21.5	2.32
521	س	—	22.5	2.29
525	س	س	21.5	2.36
526	س	س	22	2.30

<sup>10</sup> Eduard von Zambaur read the date 498 on a Yemeni dinar bearing the name al-Āmir ("Nouvelles contributions à la numismatique orientale: Monnaies inédites ou rares des dynasties musulmanes de la collection de l'auteur," *NZ* 1914, pp. 171-2: "La date . . . n'est pas très facile à lire, mais le nom du khalife fatimide el-Āmir . . . ne laisse point de doute.") Lowick, however, points out that this coin belongs to the Zurai'id series bearing al-Āmir's name posthumously, and should be dated 548. A similar dinar was published in Ibrahim Artuk and Cevriye Artuk, *İstanbul Arkeoloji Müzeleri Teshirdeki İslâmî Sikkeler Kataloğu*, Cilt I (İstanbul, 1970), no. 894, where Zambaur's error is repeated.



quarters of the *da'wa* in Cairo.<sup>11</sup> Nevertheless, the omission of the names of al-Musta'li and al-Āmir from the coinage strongly suggests that the attitude of the Ṣulaiḥids was, at the least, somewhat hesitant.

The reason for the decision in 508 to place al-Āmir's name on the coinage is also obscure. It could be simply that al-Sayyida had at last decided to accept the reality of the Musta'lian line's possession of the Egyptian caliphate. The decision may, however, have been connected with the arrival in 513/1119–20 of a representative of the Fāṭimids, Ibn Najīb al-Daula, to act as military leader of the Yemeni *da'wa* on behalf of al-Sayyida.<sup>12</sup> The latter, whose temporal power had been steadily declining for some years, was apparently in serious need of material assistance from the caliphate. Possibly, then, the official public recognition of al-Āmir on the coinage was imposed by the Fāṭimids as a precondition for the dispatch of aid to al-Sayyida, or perhaps she may have voluntarily made the change as an inducement to the Egyptians.

Whatever the case may have been, the numismatic evidence raises questions about the relationship between the Ṣulaiḥids and the Fāṭimid caliphate in this period which would not exist on the basis of the literary sources alone. The nature of this relationship may be further elucidated by the future discovery or publication of Yemeni Ismā'īlī works from this period, especially from the years immediately following al-Mustanṣir's death.

### THE ṬAYYIBĪ-ḤĀFIZĪ SECESSION

Unlike the earlier Nizārī secession, the Ṭayyibī-Ḥāfizī schism had most important and lasting consequences for the Ismā'īlīs of Yemen. As a result of it, al-Sayyida and the intellectual leadership of the Yemeni *da'wa* cut themselves off permanently from the Fāṭimid

<sup>11</sup> This correspondence is published as *al-Sijillāt al-Mustanṣiriyya*, ed. 'Abd al-Mun'im Mājid (al-Qāhira, 1954). See especially Nos. 35, 43, both dated Ṣafar 489 (pp. 109–17, 145–52).

<sup>12</sup> On this episode, see 'Umāra, *Ta'rikh*, pp. 42–3, 100; Hamdānī, *al-Ṣulaiḥiyyūn*, p. 168. On the decline in al-Sayyida's power, see Hamdānī, *al-Ṣulaiḥiyyūn*, pp. 167–68.

government in Egypt. At the same time the more pragmatic Zurā'idids of Aden maintained their allegiance to Cairo, while simultaneously endeavoring with considerable success to present themselves as the heirs of the charismatic leadership and prestige of the Ṣulaiḥids. Their policy had its benefits in the short run, but ironically they, like the Ḥāfiẓī Fāṭimids of Egypt, were swept away by the Ayyūbid Sunnī revolution; while the Ṭayyibīs, who failed to form a viable political entity, survived the Ayyūbids and their successors and form a living community today.

The schism originated in 524/1130 when the caliph al-Āmir was assassinated, leaving an infant son as his designated heir with the title al-Ṭayyib. Although al-Āmir's officials were able to maintain their control of the state, at least initially, they nevertheless did not follow their master's wishes to proclaim al-Ṭayyib caliph. In fact, they attempted to suppress all evidence of his existence, and he disappeared from public sight, probably murdered. A cousin of al-Āmir was for a time set up as figurehead, with an ambiguous position as regent, but as de facto power shifted to new hands he too was relegated to the background. Then, when power shifted again, eighteen months after al-Āmir's death, this cousin was made caliph, with the title al-Ḥāfiẓ.<sup>13</sup>

Al-Ḥāfiẓ and his supporters were able to enforce acceptance of his accession in his own realm, but not in distant Yemen. Al-Sayyida, still the head of the Ismā'īlī *da'wa* there, had received a letter from al-Āmir in 524 announcing the birth of al-Ṭayyib and explicitly designating him as heir to the imamate.<sup>14</sup> This question of designation was of fundamental importance for the Ismā'īlīs; indeed it was the basis for their separation from the rest of the Shī'a. The Ismā'īlīs believed that an imam's designation of his successor was tantamount

<sup>13</sup> This paragraph is summarized from Stern's full description and analysis of these events in *Oriens* 1951, pp. 193–212.

<sup>14</sup> The text of this letter is found in 'Umāra, *Ta'rikh*, pp. 100–2, and in Hamdānī, *al-Ṣulaiḥiyyūn*, pp. 321–2; see also Stern's emendations in *Oriens* 1951, p. 218, note 2. As Stern points out, the letter cannot originally have been part of 'Umāra's work, and it is my opinion that the entire passage in which it is found should also be rejected as an interpolation. (I hope to publish a note on this point in the near future.) In any case, the arrival and authenticity of the letter seem well established. See Ivanow, *Ismā'īlī Literature* (Teheran ed.), p. 55; Hamdānī, *al-Ṣulaiḥiyyūn*, p. 183.

to a divine mandate, so that it was irrevocable and could not fail to be fulfilled. This point had also been involved in the Nizārī secession in the previous century, but in the case of al-Ḥāfiẓ, a second issue was also at stake. In Ismāʿīlī doctrine, an imam could be succeeded only by his son, while al-Ḥāfiẓ was merely a grandson of al-Mustanṣir, and the cousin of al-Āmir. For these reasons, al-Sayyida and the Yemeni Ismāʿīlīs who followed her leadership could not be persuaded to forget about the birth and designation of al-Ṭayyib, or to accept al-Ḥāfiẓ as a legitimate imam. They insisted rather that al-Ṭayyib was alive but in hiding, and they claimed to be in contact with him, or at least with his guardians.<sup>15</sup>

A unique dinar, minted in al-Sayyida's capital Dhū Jibla in 530/1134–35, is among the coins published by Lowick.<sup>16</sup> Struck only a few years after the foundation of the Ṭayyibī *daʿwa*, it bears only the title *al-imām*, without naming him. Nevertheless, in view of al-Sayyida's position in the Ṭayyibī-Ḥāfiẓī controversy, the imam meant can only have been al-Ṭayyib—not al-Ḥāfiẓ, as Lowick assumed. The omission of the imam's name may be partly due to a certain esotericism which has often been characteristic of the intellectual milieu of Ismāʿīlism (from which came most of the adherents of al-Ṭayyib at this early stage). In this instance, the object was no doubt to avoid confusing the lay followers of the *daʿwa* and others who might not have had sufficient intellectual preparation to understand the doctrinal necessity for allegiance to al-Ṭayyib as the only rightful imam. There exists also the possibility that al-Sayyida herself was not as certain of the survival of al-Ṭayyib as the Ṭayyibī historical tradition would have her to have been.

This coin is the only known example of a late Yemeni Ismāʿīlī gold piece struck outside of Aden. For decades al-Sayyida had relied for her gold coinage on that mint, which was controlled by her nominal vassals, the Banū Masʿūd. The issuance of this Dhū Jibla coinage, then, with its omission of the name of the Egyptian

<sup>15</sup> For more detailed discussions of al-Sayyida's reaction to the accession of al-Ḥāfiẓ, see Stern, *Oriens* 1951, pp. 212–32; Hamdānī, *al-Ṣulaiḥiyyūn*, pp. 182–93.

<sup>16</sup> Lowick, *NC* 1964, pp. 263–4, no. 1.

caliph, can be seen as an expression of her new independence from the Fātimid caliphate.

The discovery of other coins minted by al-Sayyida from 524 until her death in 532/1138 might shed further light on the early evolution of the Ṭayyibī *da'wa*.

During this period the mint of Aden went on striking dinars of the "malikī" type, with al-Āmir as caliph, at least until 529.<sup>17</sup> The Banū Mas'ūd continued to hold Aden until they were evicted by their cousins, the Zurai'ids, in 532/1137-8. It is difficult to say whether the persistence of al-Āmir's name on the coinage reflects a reluctance on their part to recognize al-Ḥāfiẓ openly, or merely disinterest or ignorance. Here again, coins of Aden from 530 until the presently known beginning of the Zurai'id series in 541 would be of considerable historical interest.

Not all Yemeni Ismā'ilīs were as rigorous in their adherence to the sect's doctrines as were the intellectuals of Dhū Jibla. In particular, the Zurai'id amir of al-Dumluwa<sup>18</sup> and the hinterland of Aden, Saba' b. Abī'l-Su'ūd, was persuaded to accept appointment as *da'i* in Yemen for al-Ḥāfiẓ.<sup>19</sup> A late Ṭayyibī source<sup>20</sup> asserts that the Zurai'id recognition of al-Ḥāfiẓ was not genuine, but was rather a dissimulation of their true position, to avoid a break in relations with the Egyptian regime. Whether or not this view is accurate, it does seem probable that Saba' was motivated less by intellectual conviction than by a strong appreciation of the political benefits of association with the de facto Egyptian government. As *da'i* for the reigning Fātimid imam, Saba' could claim to be the successor of the Ṣulaiḥids, and thus heir to their enormous prestige among the

<sup>17</sup> The example of 529 cited by Lowick from a Schulman Sale Catalogue of 1929 is now in the collection of the ANS (22 mm., 2.33 gm.). It bears the same isolated letters above the obverse and reverse fields as Lowick's no. 30.

<sup>18</sup> A powerful fortress south of Ta'izz, on the route to Aden. This castle was the usual residence of the Zurai'id amirs even after their conquest of Aden in 532.

<sup>19</sup> A passage in 'Umāra's *Ta'rikh*, p. 102, seems to ascribe the appointment of Saba' to al-Sayyida, but the corruption of the text at this point makes it unlikely that this was the intended meaning. It is virtually impossible that al-Sayyida had anything to do with the appointment (see note 14 above).

<sup>20</sup> The 15th-century Ṭayyibī Dā'i Idrīs is quoted in Hamdānī, *al-Ṣulaiḥiyyūn*, p. 191.

mountain Arab tribesmen who were the basis of his military strength. It is true that the standing of the Ṣulaiḥids was based upon 'Alī al-Ṣulaiḥī's active prosecution of a religious and social revolution aimed at the overthrow of the existing political structure of Yemen, while the Zurai'ids, on the other hand were very much an established power which endeavored to preserve its own position and the status quo by a primarily defensive military policy. Nevertheless, the Zurai'ids' position as *da'is* for the Egyptian caliph provided them with a superficial coloration of charismatic religious leadership, which helped maintain the loyalty of their Arab subjects.

No coins of Saba' or of his son and successor 'Alī have yet come to light, but the coinage of the second *da'i*<sup>21</sup> Muḥammad b. Saba' (535-ca. 550/1140-ca. 1155), seems to bear out the foregoing analysis of the Zurai'id position. The coins are similar to the earlier "malikī" dinars of Aden, and like them they continue to bear the titles of al-Mukarram Aḥmad b. 'Alī al-Ṣulaiḥī, who had died in 477/1085.<sup>22</sup> In addition, however, the title *dā'i amīr al-mu'minīn* (*da'i* of the Commander of the Faithful, i.e., the imam) appears above and below the central inscription on the reverse, while on the obverse in the same places Muḥammad placed his own name and the honorific *al-mutawwaj* (the crowned) which had been granted him by the Egyptian government.<sup>23</sup> This series is the first of the Yemeni Ismā'īlī coinage to bear the title *da'i*. Muḥammad evidently was proud of his new titulature, but more pragmatically, his coinage made known throughout Yemen his position as *dā'i* of the Fāṭimid caliphate in Cairo.

In these circumstances, it seems remarkable that this coinage does not carry the name of al-Ḥāfiẓ, but rather retains the name of al-Āmir down to the end of the series, long after that caliph's death. Lowick notes this as a "curious anachronism," but in the context of the Ṭayyibī-Ḥāfiẓī schism it is difficult to dismiss this anomaly so easily. Normally, it would be expected that al-Ḥāfiẓ would insist

<sup>21</sup> Muḥammad's predecessor, 'Alī b. Saba', did not live long enough to be granted the title *dā'i* ('Umāra, *Ta'rikh*, pp. 54-55). Muḥammad's coins were published by Lowick in *NC* 1964, pp. 268-9.

<sup>22</sup> For this date, which differs from that given by 'Umāra, see Hamdānī, *al-Ṣulaiḥiyyūn*, p. 141.

<sup>23</sup> 'Umāra, *Ta'rikh*, p. 55.

that he be formally recognized on the coinage, especially in view of the challenge to his legitimacy put forward in Yemen by the Ṭayyibīs. The Zurai'ids, however, had also other factors to take into consideration. In their relations with the Egyptian regime, they of course adopted an attitude of acceptance of the validity of al-Ḥāfiẓ' claim; in return they were granted the position of *dā'ī*. This position, as suggested above, enabled them to claim to be the successors of the Ṣulaiḥids, but their claim could only be of value if no question were publicly raised as to the legitimacy of al-Ḥāfiẓ' succession and their own position. To place the name of al-Ḥāfiẓ on the coinage could have meant an open confrontation with the surviving Ṣulaiḥids and other Ṭayyibī loyalists, which would only have weakened the Zurai'ids' claim to legitimacy and thereby lessened their prestige and power. In their domestic Yemeni policies, therefore, it was in their interest to maintain an ambiguous position in the schism. By issuing their coinage in the name of al-Āmir, the last imam recognized by both factions, the Zurai'ids could conciliate the Ḥāfiẓī regime, while avoiding an open split with the Ṭayyibī loyalists. They were assisted in their endeavor to paper over the split by the fact that the Ṭayyibīs in this period (perhaps for similar reasons) did not press their claims as an open political issue. On the other hand, the distant Cairo regime was hardly in a position to enforce its demands, and, in its decline, was no doubt grateful for whatever show of recognition it could obtain.

If this understanding of the Zurai'ids position is correct, then Muḥammad's coinage can be seen to reflect these policies well. On the one hand, it proudly asserts the position of Muḥammad as *dā'ī* for the Egyptian caliph; on the other, by continuing the inscriptions and type of the Ṣulaiḥid coinage, and especially by retention of the name of al-Āmir as caliph, it emphasizes the continuity of Muḥammad's rule with that of the period before the schism.

### THE COINS OF 'IMRĀN

The latest known coins of the Ismā'īlis in Yemen are two dinars of Muḥammad's son, the *dā'ī* 'Imrān, struck in 556/1160–61.<sup>24</sup> By

<sup>24</sup> Published by Lowick, *NC* 1964, pp. 269–70.

comparison with the earlier Ismā'īlī coinage of Aden these coins present some radical innovations. One is the omission for the first time in over eighty years of the titles of al-Mukarram Aḥmad b. 'Alī al-Ṣulaiḥī, who had initiated the coinage of the earlier type (called "malikī" dinars because al-Mukarram was the only ruler in Yemen to bear the title *al-malik*, i.e., king). In their place 'Imrān put his own name and titles: "First of the kings of the age, King of the Arabs and Yemen, 'Imrān son of Muḥammad." A possible explanation of this change is suggested in a newly discovered work by 'Umāra.<sup>25</sup> He states that Muḥammad b. Saba' sent an embassy to Cairo to request that the title *al-malik* be granted to him "as it had been to al-Mukarram." By comparison with events in Egypt, the incident can be dated to 549/1154-5, which makes it probable that Muḥammad died before receiving an answer to his request. The evidence of these two coins and of 'Imrān's tomb inscription in Mecca<sup>26</sup> demonstrates that the title was granted instead to 'Imrān. It was no doubt because of this new dignity that 'Imrān felt justified in removing the titles of al-Mukarram, the last previous Ismā'īlī ruler to possess the title *al-malik*, and in substituting his own name and his new titles on the coinage.

At the same time, 'Imrān dropped from the coins the title *dā'ī amīr al-mu'minīn* which his father had placed on the coinage and which he himself continued to hold and employ.<sup>27</sup> Even beyond this, he completely eliminated all mention of the Fāṭimid imam in Cairo. These coins are thus the only Ismā'īlī coins presently known from Yemen which do not indicate the allegiance of their issuer to the Fāṭimid caliphate. It has been suggested on this evidence that 'Imrān may have broken off his connection with the Fāṭimids, but

<sup>25</sup> *Kitāb shu'ara' al-yaman*, p. 259. The work is published without special mention by Muḥammad b. 'Alī al-Akwa' as the terminal part of a new edition of 'Umāra's *Ta'rikh* which was printed in Cairo in 1967 but withdrawn from publication. Its identity to the hitherto lost *Kitāb al-shu'ara'* is shown by comparison with the passages from that work quoted by other writers. See C. Brockelmann, *Geschichte der Arabischen Literatur* I (Leiden, 1943), p. 333; and Supplementband I (Leiden, 1937), p. 570. I do not know whether al-Akwa's edition has yet been reissued for public distribution.

<sup>26</sup> *Répertoire chronologique d'épigraphie arabe* 9 (Cairo, 1937), pp. 44-5, no. 3267. See the corrected text in Stern, *Oriens* 1951, pp. 230-1.

<sup>27</sup> It appears on his tomb inscription cited in note 26 above.

the evidence of his tomb inscription and of his contemporary, 'Umāra, prove that he did not do so.<sup>28</sup>

Since the imam's name was replaced on the reverse margin by a Qur'ānic verse (LXV, 3) beginning "*wa-man yatawakkalu 'alā-'llāh . . .*," Lowick ingeniously suggests that the inscription may have been a discreet attempt to conciliate the Zaidī Imam al-Mutawakkil 'alā Allāh, whose period of greatest activity in Yemen was about this time. The suggestion is lent some support by passages in an unpublished anonymous Zaidī history<sup>29</sup> which for this period virtually quotes the official (and near-contemporary) biography of al-Mutawakkil.<sup>30</sup> At one point in the history, apparently about the time the coins in question were minted, a passage describes 'Imrān's concern because of al-Mutawakkil's incursions on the fringes of the Zurai'id territories.<sup>31</sup> Even so, 'Imrān does not seem to have been in serious danger because of the invasion. He brought up reinforcements for the garrisons of his northeastern frontier cities, while al-Mutawakkil after a few months left the scene in disgust at the dissensions and greed of the Arabs who had called in his assistance. The history does not claim that 'Imrān ever acknowledged al-Mutawakkil's sovereignty, or had any diplomatic contact with him; it is certainly to be expected that such a source would mention even the slightest gesture of recognition had it occurred.

In another place,<sup>32</sup> the anonymous history states that 'Imrān was favorably impressed by a *da'wa* proclamation of al-Mutawakkil which happened to fall into his hands. As in the earlier instance, nothing came of this contact. In particular, 'Imrān refused to join with al-Mutawakkil in a campaign against the revolutionary Mahdid state in Zabīd, although he seems, according to the history, to have

<sup>28</sup> 'Umara, *Ta'rīkh*, p. 58; *Kitāb al-nukat*, pp. 91-3; see also Ibn al-Mujāwir, *Ta'rīkh al-mustabshir* (ed. Oscar Löfgren, Leiden, 1951-4), p. 126.

<sup>29</sup> Milan, Bibliotheca Ambrosiana Ms. H 5.

<sup>30</sup> On folio 2a, the anonymous author cites the *Sīrat al-Mutawakkil*, by Sulaimān b. Yaḥyā al-Thiqāfī. From this point the manuscript seems to quote this work almost verbatim, until at the bottom of f. 44a the author breaks off the narrative with the words, "This is the end of what I have copied from his sīra, because I have only seen its first volume." This *sīra* and its author appear to be otherwise unknown.

<sup>31</sup> Milan, Ambrosiana H 5, ff. 37b-38a.

<sup>32</sup> Milan, Ambrosiana H 5, ff. 43b-44a.



been very pleased to see the Zaidī lead other Yemenis in such a campaign. In any case, this incident took place about 559/1163, some three years after the striking of the coins in question. On the whole, it does not seem likely that ‘Imrān ever granted any form of recognition to al-Mutawakkil. The Zaidī threat to the Zurai‘id territories was both peripheral and transient, while ‘Imrān on the other hand was among the strongest rulers in Yemen in his time. The numismatic evidence nevertheless remains disturbing. The discovery of additional coins of ‘Imrān might help resolve this problem, by providing further evidence on the date when ‘Imrān made his changes in the inscriptions and perhaps by showing whether the omission of the name of the Fāṭimid imam was permanent.

After ‘Imrān’s death in 561/1166<sup>33</sup> control of his kingdom passed into the hands of two of his officials, one in al-Dumluwa and one in Aden, who ruled on behalf of ‘Imrān’s minor sons. ‘Umāra and Ibn al-Mujāwir<sup>34</sup> indicate that a tenuous connection was maintained with the Fāṭimid caliphate, but little is actually known about the history of the dynasty in these few years before the arrival of the Ayyūbid Ṭūrānshāh in 569/1174. Coins of Aden issued after ‘Imrān’s death, if they exist, might shed light on the nature of the dynasty’s relationship with the Fāṭimids, and on its reaction to the ending of the Fāṭimid caliphate by Ṣalāḥ al-Dīn in 567/1171.

<sup>33</sup> This date, which differs from that in ‘Umāra, is demonstrated by ‘Imrān’s tomb inscription in note 26 above.

<sup>34</sup> See note 28 above.

## A HOARD OF SILVER COINS OF BARSBĀY

(PLATE XXVIII)

SAMUEL LACHMAN

A lot of 78 silver coins, covered with greyish-white sand and verdegriis, which examination revealed to be part of a hoard, recently came into my possession. These issues of al-Ashraf Abū al-Naṣr al-Dīn Barsbāy were bought from a dealer who had acquired them several years previously and had already sold some elsewhere. The provenance of the hoard is unknown, though it is most likely northern Israel. The description of the coins follows the listings of Paul Balog's *The Coinage of the Mamlūk Sultans of Egypt and Syria*, *ANSNS* 12 (New York, 1964), hereafter referred to as *MSES*. Balog's discussion of metrology applies to these coins.<sup>1</sup> The inscriptions have in a number of cases been reconstructed from several coins, since the dies used were usually larger than the flans. Nine dirhems and 15 half-dirhems, all late emissions, could not be definitely identified, though they were in the style of the coins of 832 and 833 H.

### TYPE I. EARLY EMISSIONS

1. DAMASCUS, date missing. As *MSES* 718. Obverse clockwise marginal legend begins الملك الاشرف.  $\frac{1}{4} + \frac{1}{8}$  dirhem (13, 1.12), PLATE XXVIII.
2. HAMĀH, date missing. As *MSES* 719. Dirhem (17, 2.06).

### TYPE II. LATE EMISSIONS

#### Non-heraldic

3. Mint missing, 831 H. There is little doubt that the coins were minted at Damascus, since coins in the same style were struck there in 832 H. Border on both sides: double linear multilobe.

<sup>1</sup> *MSES*, p. 43.

برسبای  
الملك الاشرف  
حمد  
ابو النصر  
خلد الله ملكه

(بدمشق)  
لا اله الا الله  
حمد  
محمد رسول الله  
احد وثلاثين

Dirhem (17, 2.03), PLATE XXVIII. Half-dirhem (15, 1.05).

4. DAMASCUS, 832 H. Border on both sides: double linear multilobe.

As No. 3, but first line:

As No. 3, but last line:



برسبای

اثنين وثلاثين

Dirhem (16, 2.04), PLATE XXVIII. Half-dirhem (13, 1.00).<sup>2</sup>

5. As *MSES* 720. Half-dirhem, two specimens (13, 0.94; 13, 0.99).

6. DAMASCUS, date missing or undated. Border: single linear multilobe with pellets in outer angles. Top obv. and bottom rev. lines partly missing. There may be a further line on either or both sides.

ضرب بدمشق  
السلطان الملك الاشرف  
حمد  
ابو النصر برسبای

لا اله الا الله  
حمد  
محمد رسول الله  
ارسله باهدي

Dirhem (17, 2.12), PLATE XXVIII.

### Heraldic

The change from non-heraldic to heraldic issues took place in 832 H. During that year many dies and die combinations were used; a number of variations in the inscriptions of the heraldic issues appeared in the following years. Barsbāy was written in two forms: برسبای or برسبای. The large pearled chalice of *MSES* 721 is found on one emission of year 832 H., which may be the initial heraldic issue. On the other issues a simpler, smaller form of the chalice appears ۱.

7. DAMASCUS, 832 H. Border on both sides: double linear multilobe with pellets in outer angles.

<sup>2</sup> There are also two specimens of a half-dirhem, date missing, resembling Nos. 3 or 4 (13, 1.12; 13, 0.96).

As *MSES* 721, but  
ornament:

ابو نصر

As No. 4.

Dirhem (17, 1.97), PLATE XXVIII. Half-dirhem (13, 1.04).

8. DAMASCUS, 832 H. Border on both sides: double linear multilobe:

As *MSES* 721, but  
without ornament and

with simpler chalice and برشبا.

As *MSES* 721, but last line:

ب مشق

ضر بد

Dirhem (17, 2.10), PLATE XXVIII. Half-dirhem (13, 1.03). Dirhem (17, 1.97) and half-dirhem (13, 1.03) as No. 8, date missing. Dirhem (17, 2.10) as No. 8, mint missing.

9. DAMASCUS, 832 H. Border on both sides: (double linear multilobe).

برسبای  
الملك الاشرف  
ابو نصر  
اثنين وثلاثين

As *MSES* 721, but last line:

بدمشق

Dirhem (17, 2.09), PLATE XXVIII. Half-dirhem, two specimens (13, 1.04; 13, 1.05). Obv. border: double linear multilobe; rev. border: single linear multilobe; both with pellets in outer angles; dirhem, as No. 9, date missing, three specimens (16, 2.09; 16, 2.06; 16, 2.12).<sup>3</sup> Half-dirhem as No. 9, date missing, two specimens (13, 1.02; 12, 1.01). Quarter-dirhem as No. 9, date missing (12, 0.53). Dirhem as No. 9, mint missing (16, 1.93).

10. No mint, 832 H. Border on both sides: double linear multilobe. This is a mule with a date on both sides.

As No. 8.

As No. 4, but missing  
first line.

Dirhem, three specimens (17, 2.18), PLATE XXVIII, (17, 2.05; 16, 2.11). Obv. date missing, border: double linear multilobe with pellets in outer angles; dirhem as No. 10, two specimens (17, 2.02; 16, 2.18). Obv. date missing, half-dirhem as No. 10, four specimens (14, 1.06; 14, 1.02; 14, 1.17; 13, 1.05).

<sup>3</sup> The third coin shows traces of a date which may be 833 H., but Barsbāy appears on this coin in the same style as No. 9. No other coin has been found in this style dated 833 H.

11. No mint, 832 H. Border: (?) This appears to be another mule.

As No. 9, but only traces      As No. 10.  
of year.

Dirhem (16, 2.15), PLATE XXVIII Half-dirhem as No. 11, missing last obv. line, two specimens (13, 1.08; 12, 1.05).

12. DAMASCUS, date missing. Border on both sides: double linear multilobe.

As No. 8.      As No. 9.

Dirhem (16, 2.04), PLATE XXVIII.

13. DAMASCUS, 833 H. Border on both sides: double linear multilobe with pellets in outer angles.

As No. 8, but third line:      As No. 3, but third line:

ابوا ۛ النصر

مشق  
بد

Dirhem, two specimens (16, 2.12), PLATE XXVIII, (16, 2.07). Half-dirhem, two specimens (13, 1.01; 13, 1.04). Half-dirhem as No. 13, date missing (13, 1.02).

14. DAMASCUS, 833 H. Border on both sides: double linear multilobe with pellets in outer angles.

As No. 8.      As No. 8, but last line:

ب مشق  
ضر بد

Dirhem, three specimens (17, 2.10), PLATE XXVIII, (16, 2.01; 17, 2.08). Half-dirhem (13, 1.06). Half-dirhem as No. 14, date missing, three specimens (14, 1.05; 13, 1.04; 12, 1.02).

15. DAMASCUS, 834 H. Border on both sides: single linear multilobe.

برسبای  
الملك الاشرف

ۛ

[ابوا] ۛ لنصر  
[ار] بع ثلاثين

[ضرب] (?)  
لا اله الا الله

محمد ۛ [سول الله]  
بد [مشق]

Dirhem (16, 2.18), PLATE XXVIII.

# THE SILVER AND BILLON COINS MINTED AT CONSTANTINOPLE UNDER SULTAN MAḤMŪD II (1223–1255 H.)

(PLATES XXIX–XXXII)

BENJAMIN SASS

The kuruş, Maḥmūd II's silver unit, was first minted under Süleymān II (1099–1102 H./A.D. 1687–1691) and was then the highest denomination, but its weight decreased constantly as higher denominations were added.<sup>1</sup> The following silver coins were minted from Süleymān II to Maḥmūd II:<sup>2</sup>

Altılık	–	6 kuruş (Maḥmūd II only)
Beşlik	–	5 kuruş „
Üçlük	–	3 kuruş „
Yüzlük	–	100 para (From Selīm III 1202–1222 H.)
İkilik	–	80 para (From the 16th year of ‘Abd al-Ḥamīd I 1202/3 H.)
Altmışlık	–	60 para (From Muṣṭafā III 1171–1187 H.)
Kuruş	–	40 para
Zolta	–	30 para
Yirmilik	–	20 para
Onbeşlik	–	15 para (Until Muṣṭafā III)
Onluk	–	10 para
Beşlik (Beş paralık)	–	5 para
Para		
Akçe	–	1/3 para

To the best of my knowledge, devaluations of the kuruş were made no more than once during any reign in the time of Maḥmūd's predecessors. I know of four devaluations of the kuruş before

<sup>1</sup> A weight list is available in William L. Clark, "The Silver Coinage of Mahmud II Struck at Constantinople," *ANSMN* 4 (1950), p. 122.

<sup>2</sup> The altılık, üçlük, altmışlık, yirmilik, onluk and para on the last standard of Maḥmūd II were also struck in the first five years of the reign of his successor, ‘Abd al-Majīd (1255–1277 H.).

Maḥmūd II. Maḥmūd I devalued from  $8\frac{1}{4}$  to  $7\frac{1}{2}$  dirhems.<sup>3</sup> Muṣṭafā III devalued from  $7\frac{1}{2}$  dirhems at the beginning of his first regnal year to about 6 dirhems. ‘Abd al-Ḥamīd devalued from about 6 dirhems until his eighth regnal year to about  $5\frac{1}{2}$  dirhems later.<sup>4</sup> Selīm III devalued from about  $5\frac{1}{2}$  dirhems at the beginning of his first regnal year to 4 dirhems.<sup>5</sup>

Maḥmūd’s silver coins can be divided into ten series. All but two of the coins are illustrated,<sup>6</sup> so there is little need for catalogue description except when it seems necessary to notice certain details of the design. The fineness of Series 1–3, 6, and 8–10 is according to Ghalib. For Series 4, 5, and 7, the results of an analysis made at the Standards Institute of Israel are given (Table 1).<sup>7</sup> The weight of each type of coin, except para and akçe<sup>8</sup> is given in dirhems and kirats, with the gram weight in parentheses.<sup>9</sup>

The first series of Maḥmūd’s silver coins was issued on the same standard as coins of his predecessors Selīm III and Muṣṭafā IV in the denominations kuruş, onluk, beşlik, para and akçe.<sup>10</sup> All coins have a border of a circle and large dots except the akçe, which has a rope border.

<sup>3</sup> I am grateful to Mr. Samuel Lachman of Haifa for drawing my attention to this devaluation.

<sup>4</sup> This devaluation can only be noticed from the average weight of many coins, since individual pieces are often over- or underweight by an amount greater than  $\frac{1}{2}$  dirhem per kuruş.

<sup>5</sup> See Samuel Lachman, "The Standard of the Silver Coinage of Sultan Selim III," *NCirc* May 1969, p. 167; and "The Silver Coinage of Sultan Selim III," *NCirc* Oct. 1969, p. 332, Nov. 1970, p. 449.

<sup>6</sup> Specimens of Nos. 23 and 29 were not available for photography.

<sup>7</sup> In Table 3 of *Takvimi Meskûkâtı Osmaniye* (Istanbul, 1890), Ismail Ghalib states that the silver coins of years 14–16 were .730 fine. For the sixth series analysis showed a slightly lower silver content than that given by Ghalib; Ghalib’s record of fineness is given in parentheses in Table 1.

<sup>8</sup> For paras and akçes the theoretical weight of  $\frac{1}{40}$  and  $\frac{1}{120}$  of the kuruş is shown in parentheses; next to each weight is the weight of an actual specimen, since the actual and theoretical weights often differ by several tenths of a gram and such a difference is a considerable deviation in these small coins.

<sup>9</sup> The dirhem (3.207 gm.) is divided into 16 kirats (0.20 gm.).

<sup>10</sup> The yüzlük and ikilik of years 1 and 2 and the altmışlık, zolta and yirmilik of year 1 are patterns and therefore not listed here. See Cüneyt Ölçer, *Sultan Mahmud II zamanında darp edilen osmanlı madenî paraları* (Istanbul, 1970), nos. 190–196, 214. They belong to the first series.

The second series,<sup>11</sup> minted until year 14, comprises the same denominations, but the weight is reduced by 25 percent. The large dots of the border of the kuruş, beşlik and para are replaced by a rope or very small and close dots. The border of the onluk and akçe is unchanged.

The third series, beşlik, yüzlük and kuruş, was struck simultaneously with the second series during years 3–11, but on a different standard. The smallest denomination of this series, struck in year 3 only, is a kuruş, not an ellilik (50 paras) as Ghalib, Pere and Ölçer contend.<sup>12</sup> The impractical denomination of  $1\frac{1}{4}$  kuruş had never before been struck. In Series 8 and 9, whose two highest denominations are also beşlik and yüzlük, the third coin is a kuruş. Moreover, if this coin were an ellilik, its weight should be 2 dirhems (6.41 gm.), but specimens of this coin usually weigh about 1 dirhem,  $9\frac{1}{2}$  kirats (5.13 gm.), a fifth of the beşlik weight. The heaviest specimen known to me (Ghalib 1001) weighs 1 dirhem,  $11\frac{3}{4}$  kirats, but this weight is still nearer a fifth than a quarter of the beşlik weight.

The fourth series was issued during year 14, but discontinued in year 15. Kuruş, onluk and beşlik were identical in diameter and design to the corresponding denominations of the second series, while the para had a rope border rather than a circle line and rope; all weighed 33 percent less. An ikilik with an unusual ornamentation also belongs to this series.<sup>13</sup> The akçe was no longer minted.

From the beginning of the fifth series in year 15, all silver coins except the para were minted with reeded edge, which had previously been a characteristic only of gold coins. The new series was struck on the same standard and with the same denominations as the fourth series. However, the ornamentation, including border designs, underwent changes: there is a new type of flower to the right of the tughra; the ornamentation of the ikilik resembles that of the

<sup>11</sup> Specimens of the first series are known from years 1 and 2, and specimens of the second series from year 3 onward. However, it may be that the transition from the first to the second series took place in year 2 or year 3.

<sup>12</sup> Ghalib, *Takvimi* no. 1001; Nuri Pere, *Osmanlılarda Madeni Paralar* (Istanbul, 1969), no. 812; Ölçer, *Mahmud II* no. 314.

<sup>13</sup> Only one other coin with similar ornamentation is known: the ikilik minted in the sixteenth, and last, year of 'Abd al-Ḥamīd I (1202/3 H.). See Pere, *Osmanlılarda* no. 673.



kuruş of the third series (No. 13). Its border decoration, which in the earlier series was a circle and rope, is now a circle with small leaves growing out of it. The same change also affected the kuruş. The frames enclosing the legend on the reverse of the kuruş and onluk are now separate from the border's circle line. The onluk has a rope border instead of the previous dotted border. The beşlik was minted in a new design, which like the ikilik has a flower to the right of the tughra and two little ornaments to the left. Beginning with this series, the para has a flower to the right of the tughra.

The fifth series was replaced during year 16<sup>14</sup> by the sixth, which consisted of the altmışlık, zolta and para.

The seventh series replaced the sixth in year 21. Its two coins were probably not the kuruş and yirmilik, since the devaluation would be about 70 percent, which seems too large even if we consider the state of the Turkish economy at that time. On the other hand, these coins are too heavy to be the onluk and beşlik suggested by Lane-Poole and are probably yirmilik and onluk.<sup>15</sup> A para of this series was also struck, but it is difficult to distinguish it from the para of the sixth and eighth series. The series was discontinued in year 22.

The next two series were struck in billon. Both comprised the same denominations: beşlik, yüzlük, kuruş, yirmilik, onluk and para.<sup>16</sup> They differ in silver content: 22.5 percent in the eighth series (years 22–25) and 17.5 percent in the ninth (years 25–32). There is no visible difference between the series except for a dot placed on both sides beneath the inner wreath on the ninth series' coins, except the para. The coins of both series were originally plated.

The tenth series was issued in year 26 and marks the only improvement of standard in Maḥmūd's reign. The three coins of this series, altılık, üçlük, and altmışlık replaced the three highest denomi-

<sup>14</sup> My collection contains an onluk of year 18 similar to Series 5, no. 22. Ölçer, *Mahmud II* no. 250 is a beşlik of the same year similar to Series 5, no. 23. This raises the problem of the overlapping of two series, the solution of which will depend on an analysis of silver content which may be lower in the coins of year 18.

<sup>15</sup> Stanley Lane-Poole, *Catalogue of Oriental Coins in the British Museum*, Vol. 8 (London, 1883), nos. 949–950. For patterns of year 22, see Ölçer, *Mahmud II* nos. 335, 336, 343a and 349a.

<sup>16</sup> The word عدلی [Adli], meaning *just*, is placed to the right of the tughra on all coins of Series 8–10 except the one para.

## CONSTANTINOPOLITAN ISSUES OF MAHMÜD II 171

nations of the previous series,<sup>17</sup> but the yirmilik, onluk and para of the ninth series were minted with the new denominations until Maḥmūd's death in his thirty-second regnal year.

### SERIES 1 Years 1-2 (?), .460 fine.

1. Kuruş, 36 mm., 4 dirhems (12.83 gm.).  
*BMC* 935 (Yüzlük), Pere 803 (Ellilik).
2. Onluk, 23.5 mm., 1 dirhem (3.21 gm.).  
*BMC* 940, 941 (Yirmilik).
3. Beşlik, 19 mm., 8 kirats (1.60 gm.).  
*BMC* 944 (Onluk).
4. Para, 14.5 mm., (0.32 gm.; Clark 5, 0.37 gm.).
5. Akçe, 11.5 mm., (0.11 gm.; Clark 6, 0.15 gm.).

### SERIES 2 Years 3(?)–14, .460 fine.

6. Kuruş, 32 mm., 3 dirhems (9.62 gm.).  
*BMC* 936, 937 (Altmışlık).
7. Onluk, 22 mm., 12 kirats (2.41 gm.).  
*BMC* 942–943, Clark 17 (Yirmilik).
8. Beşlik, 18 mm., 6 kirats (1.20 gm.).
9. Para, 14 mm., (0.24 gm.; Clark 13, 0.24 gm.).
10. Akçe, 10 mm., (0.08 gm.; Clark 14, 0.10 gm.).

### SERIES 3 Years 3–11, .730 fine.

11. Beşlik, 41–42 mm., 8 dirhems (25.66 gm.).
12. Yüzlük, 34–36 mm., 4 dirhems (12.83 gm.).
13. Kuruş, 28 mm., 1 dirhem, 9½ kirats (5.13 gm.).  
Ghalib 1001, Pere 812, Ölçer 314; (Ellilik), Clark 10 (Yirmilik).

### SERIES 4 Years 14–15, .460 fine.

14. İkilik, 36–37 mm., 4 dirhems (12.83 gm.).  
*BMC* 934 (?) (Yüzlük).
15. Kuruş, 32 mm., 2 dirhems (6.41 gm.).
16. Onluk, 22 mm., 8 kirats (1.60 gm.).
17. Beşlik, 18 mm., 4 kirats (0.80 gm.).
18. Para, 13 mm., (0.16 gm.; Ölçer 265, 0.15 gm.).

<sup>17</sup> See *BMC*, pl. IX, nos. 954–956 and 956b are clearly altmışlıks.

SERIES 5 Years 15-16, .460 fine.

- 19. İkilik, 38 mm., 4 dirhems (12.83 gm.).
- 20. Kuruş, 32 mm., 2 dirhems (6.41 gm.).
- 21. Onluk, 20-21 mm., 8 kirats (1.60 gm.).
- 22. Beşlik, 17 mm., 4 kirats (0.80 gm.).
- 23. Para, 13 mm., (0.16 gm.; Ölçer 265a, 0.17 gm.).

SERIES 6 Years 16-21, .542 fine (.600, see note 7).

- 24. Altmışlık, 35 mm., 2 dirhems (6.41 gm.).  
*BMC* 947 (Kuruş).
- 25. Zolta, 28 mm., 1 dirhem (3.21 gm.).  
*BMC* 948 (Yirmilik).
- 26. Para, 12.5 mm., (0.11 gm.; Clark 23, 0.12 gm., Pere 831, 0.18 gm.).

SERIES 7 Years 21-22, .460 fine.

- 27. Yirmilik, 22 mm., 8 kirats (1.60 gm.).  
Ghalib 1009, Clark 24, Pere 819, Ölçer 331-332 (Kuruş); *BMC* 949 (Onluk).
- 28. Onluk, 18 mm., 4 kirats (0.80 gm.).  
Ghalib 1010-1011, Clark 25, Pere 820, Ölçer 333-334 (Yirmilik); *BMC* 950 (Beşlik).
- 29. Para, 11 mm., (0.08 gm.; Ölçer 272(?), 0.08 gm.; Pere 832(?)  
(Akçe), 0.12 gm.).

SERIES 8 Years 22-25, .225 fine.

- 30. Beşlik, 39 mm., 5 dirhems (16.04 gm.).
- 31. Yüzlük, 34 mm., 2½ dirhems (8.02 gm.).
- 32. Kuruş, 27 mm., 1 dirhem (3.21 gm.).
- 33. Yirmilik, 21 mm., 8 kirats (1.60 gm.).
- 34. Onluk, 17 mm., 4 kirats (0.80 gm.).
- 35. Para, 10.5 mm., (0.08 gm.; Ölçer 274, 0.10 gm.; Clark 31, 0.14 gm.).

SERIES 9 Years 25-26 (Nos. 39-41 to year 32), .175 fine.

- 36. Beşlik, 39 mm., 5 dirhems (16.04 gm.).
- 37. Yüzlük, 34 mm., 2½ dirhems (8.02 gm.).
- 38. Kuruş, 27 mm., 1 dirhem (3.21 gm.).

39. Yirmilik, 21 mm., 8 kirats (1.60 gm.).  
 40. Onluk, 17 mm., 4 kirats (0.80 gm.).  
 41. Para, 12-13 mm., (0.08 gm.; BMC 966, 0.13 gm.; Ölçer 278, 0.24 gm.).

SERIES 10 Years 26-32, .440 fine.

42. Altılık, 38 mm., 4 dirhems (12.83 gm.).  
 43. Üçlük, 33 mm., 2 dirhems (6.41 gm.).  
 44. Altmışlık, 28 mm., 1 dirhem (3.21 gm.).  
 BMC 954-956, 956b, Clark 35 (Kuruş).

A list of issue dates is not given here, because a detailed list can be found in Cüneyt Ölçer's book. Five coins not listed there have been published: Series 1, Akçe, year 1 (Clark 6); Series 2, Onluk, year 14 (Clark 17), Beşlik, year 14 (Pere 817), Para, year 14 (Clark 20), and Akçe, year 5 (Clark 14).

TABLE 1: Devaluation of the Kuruş by Series

Series	Regnal yrs.	Gm. wt. of kuruş <sup>a</sup>	Fineness	Gm. wt. of pure silver in kuruş	Change of standard in percent
1	1-2?	12.83	460	5.90	
2	3?-14	9.61	460	4.42	-25
3	3-11	5.13	730	3.74	-37, -15 <sup>b</sup>
4	14-15	6.41	460	2.95	-33 <sup>c</sup>
5	15-16	6.41	460	2.95	
6	16-21	4.28	542 (600)	2.32 (2.57)	-21 (-13)
7	21-22	3.21	460	1.48	-36 (-42)
8	22-25	3.21	225	0.72	-51
9	25-26 (32)	3.21	175	0.56	-22
10	26-32	2.14	440	0.94	+68

<sup>a</sup> For Series 6 and 10, in which there is no kuruş, the weight of  $\frac{2}{3}$  altmışlık is given.

<sup>b</sup> -37 percent in comparison with the first series; -15 percent in comparison with the second series.

<sup>c</sup> In comparison with the second series.

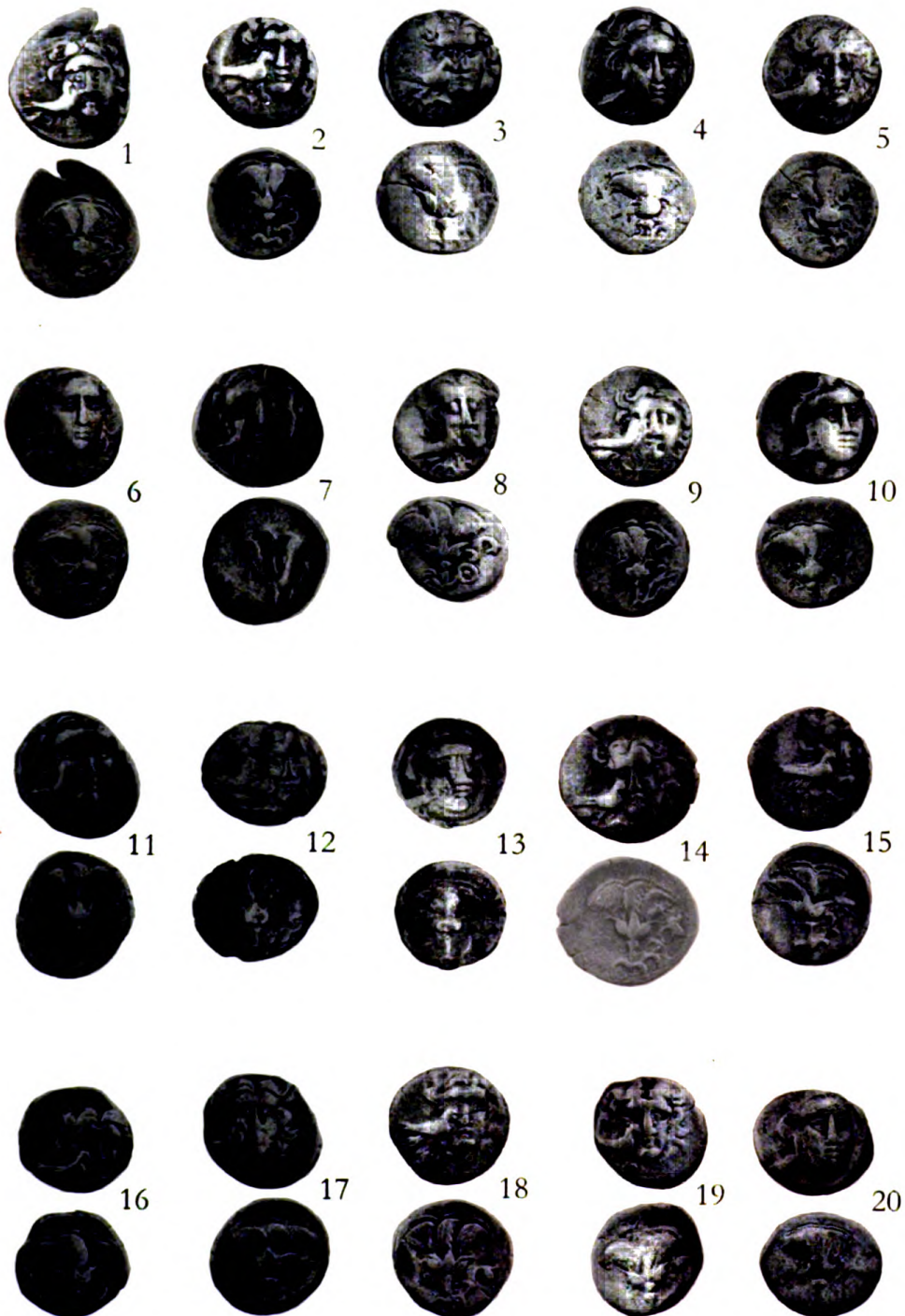
TABLE 2: Concordance of Constantinopolitan Issues of Maḥmūd II

<i>Series</i>	<i>No.</i>	<i>Denomi- nation</i>	<i>BMC</i>	<i>Ghalib</i>	<i>Clark</i>	<i>Pere</i>	<i>Ölçer</i>
1	1	Kuruş	935	985	1	803	198, 199
	2	Onluk	940, 941		3, 11	805	216, 217
	3	Beşlik	944	988	4	806	233, 234
	4	Para	945		5		251, 252
	5	Akçe		993	6		284
2	6	Kuruş	936, 937	986	9	804	200-210
	7	Onluk	942, 943	987	17		218-228
	8	Beşlik		989	12	817	235-245
	9	Para		990-992	13, 20	807	253-263
	10	Akçe		994	14		294
3	11	Beşlik	931-933	998, 999	7	810	296-304
	12	Yüzlük		1000	8	811	305-312
	13	Kuruş		1001	10	812	314
4	14	İkilik	934?	1002, 1003	15	813	315, 316
	15	Kuruş	938, 939?	1005?	16		211, 212
	16	Onluk			18		229, 230
	17	Beşlik		1007			246
	18	Para					264, 265
5	19	İkilik		1004	15a	814	317, 318
	20	Kuruş	939?	1005?		815	212a, 213
	21	Onluk		1006		816	230a-232
	22	Beşlik		1008	19	818	247, 248, 250
	23	Para					265a, 266
6	24	Altmışlık	946, 947	996	21	808	319-324
	25	Zolta	948	997	22	809	326-330
	26	Para			23	831	267-271
7	27	Yirmilik	949	1009	24	819	331, 332
	28	Onluk	950	1010, 1011	25	820	333, 334
	29	Para				832?	272?
8	30	Beşlik	951, 951a?	1012, 1013	26	821	337-340
	31	Yüzlük	952?	1016, 1017	27	823	343, 344-346
	32	Kuruş	953, 953a	1019-1021	28	825	349, 350-352
	33	Yirmilik	957, 958?	1023, 1024	29	827	355-358
	34	Onluk	963	1032		829	367-370
	35	Para	965?		31	832?	272?-275

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	37	Yüzlük	952?, 952a	1018		824	347, 348
	38	Kuruş		1022		826	353, 354
	39	Yirmilik	958?-962b	1025-1031	36	828	359-366
	40	Onluk	963a	1033	30, 37	830	371-378
	41	Para	965?-966	1034	38		276-282
10	42	Altılık	964-964b	1035, 1036	32	833	379-385
	43	Üçlük	964c, 964d	1037	33	834	386-392
	44	Altmışlık	954, 956, 956b, 964e, 964f	1038	34, 35	835, (836)	393-399





HOARD OF RHODIAN-TYPE DRACHMS

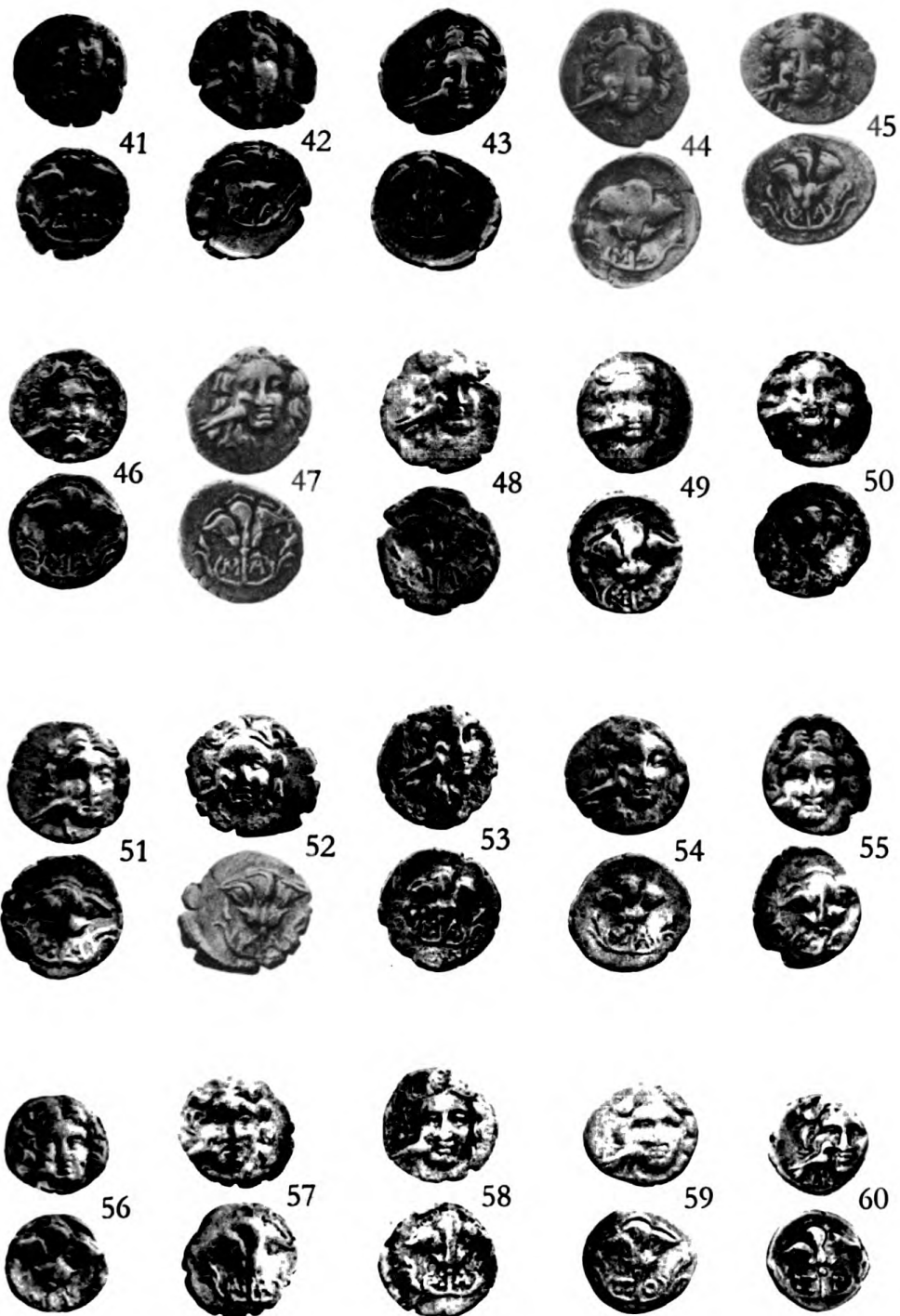


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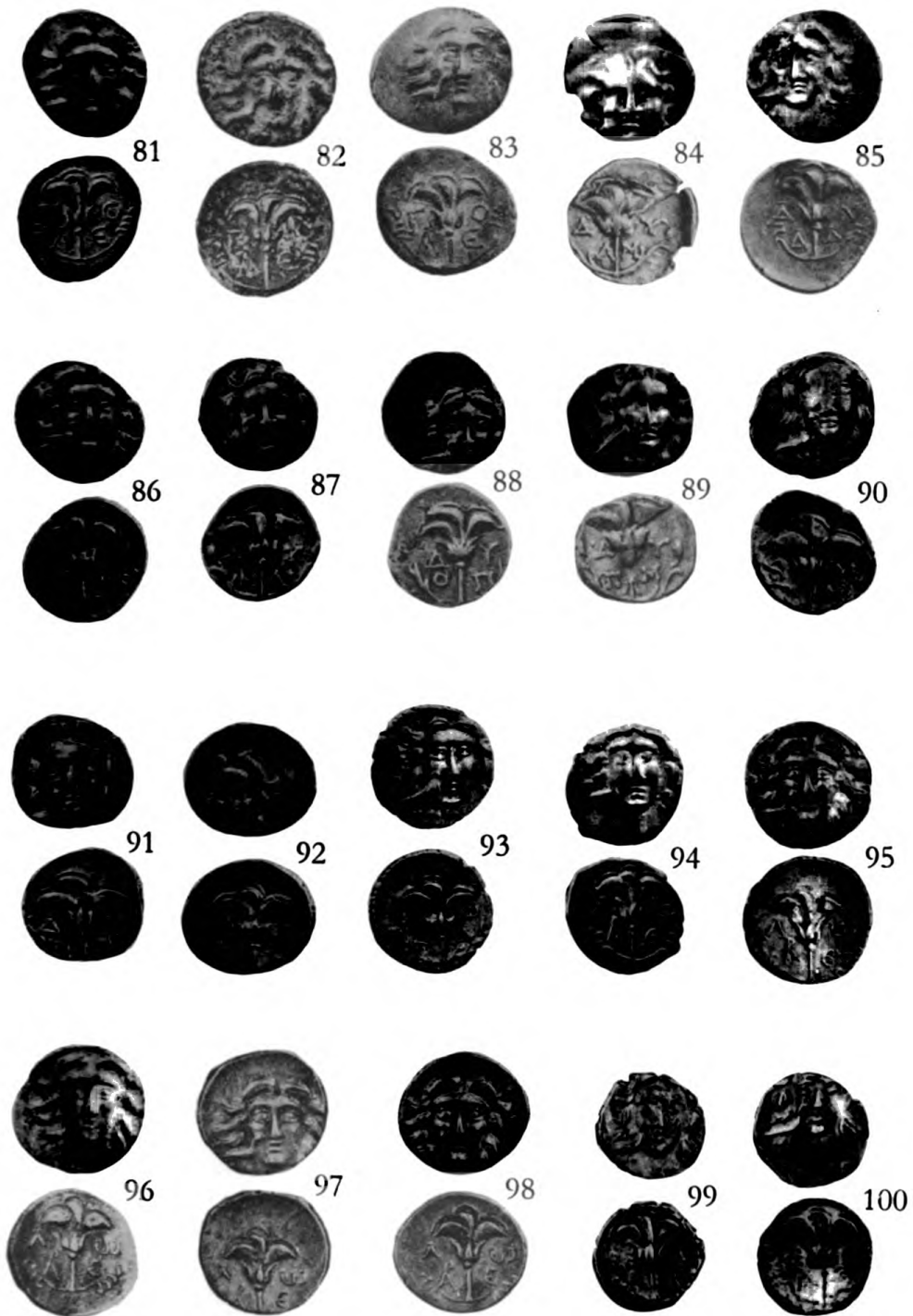


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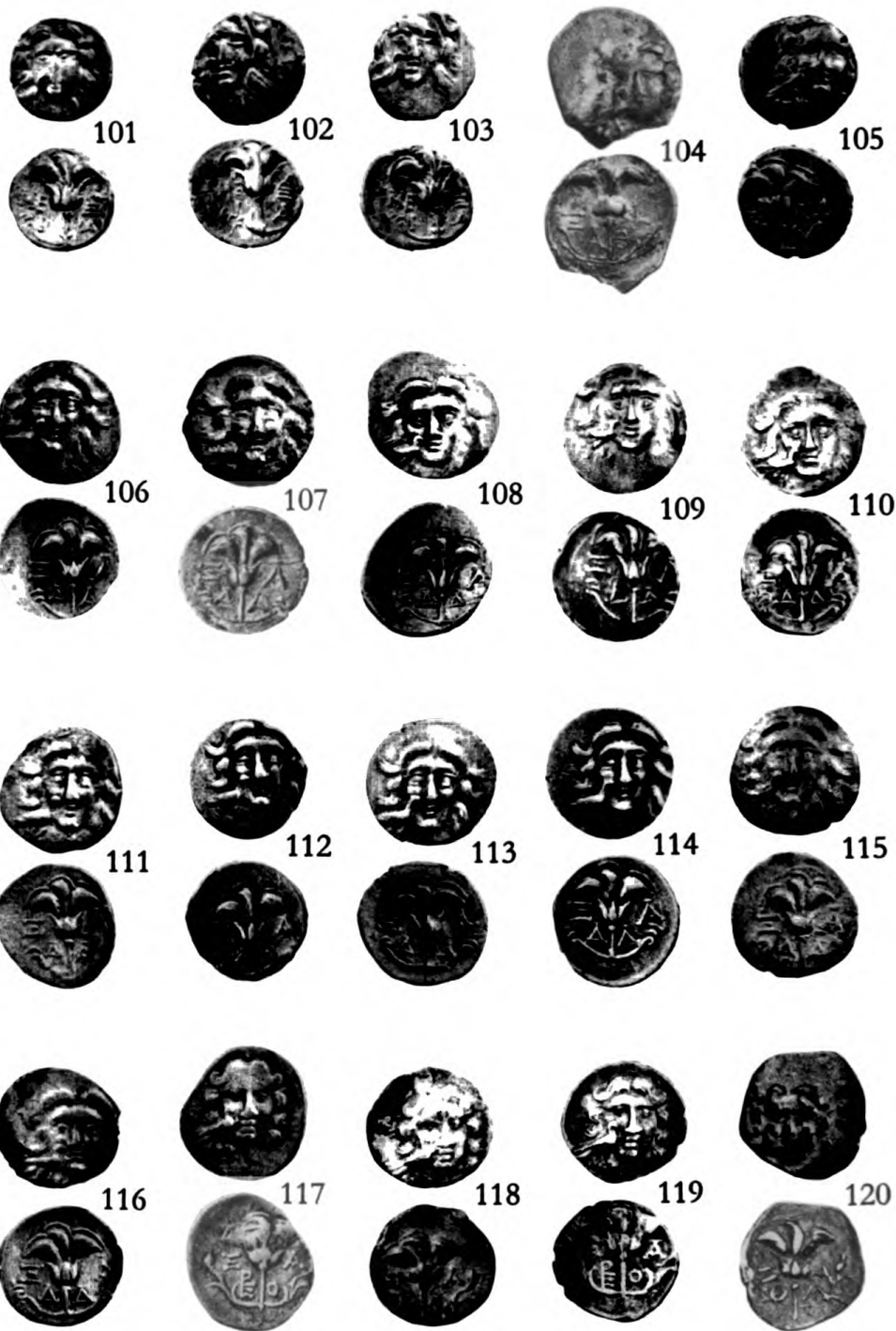


HOARD OF RHODIAN-TYPE DRACHMS



HOARD OF RHODIAN-TYPE DRACHMS

VI



HOARD OF RHODIAN-TYPE DRACHMS



HOARD OF RHODIAN-TYPE DRACHMS

# VIII



HOARD OF RHODIAN-TYPE DRACHMS

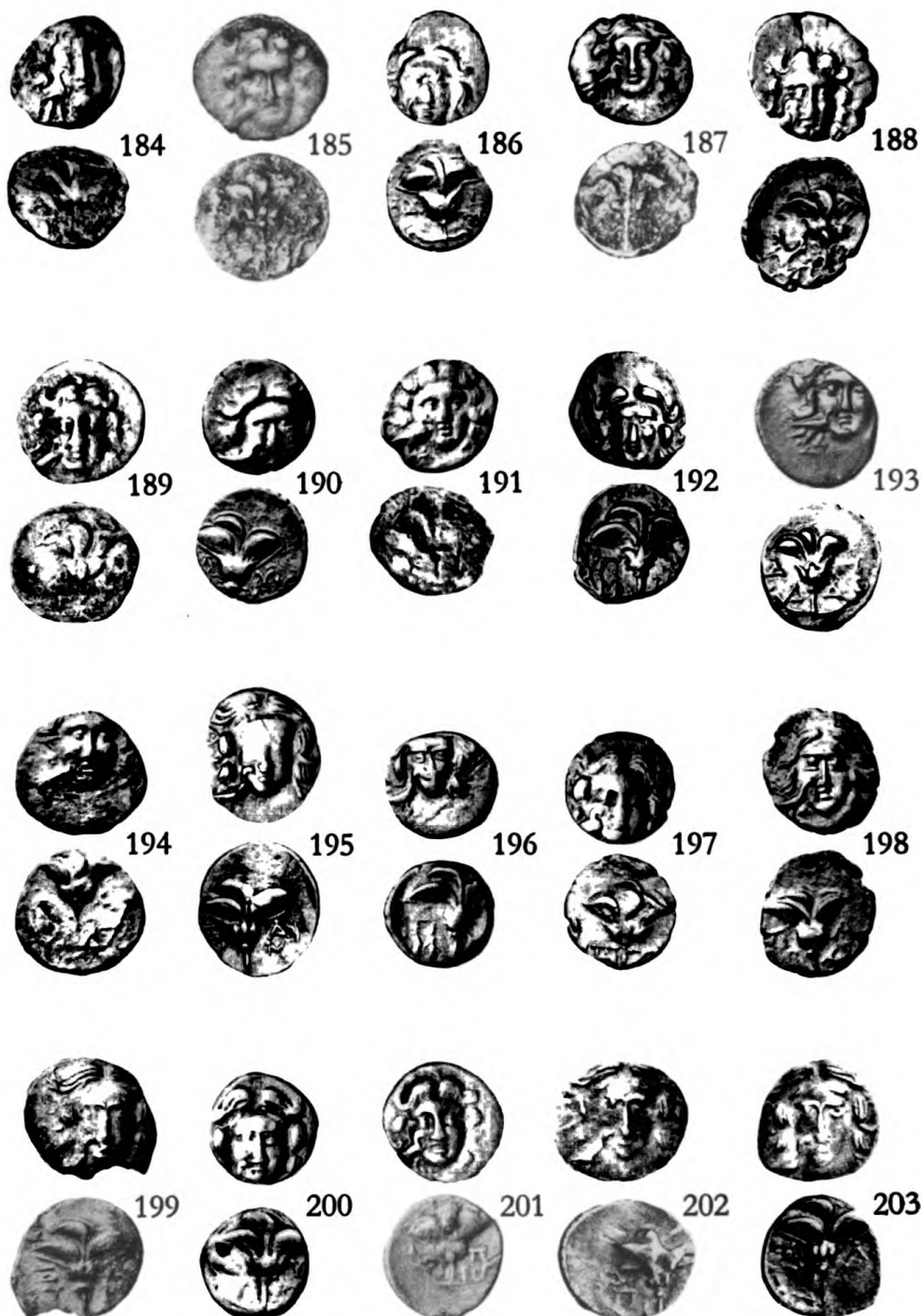




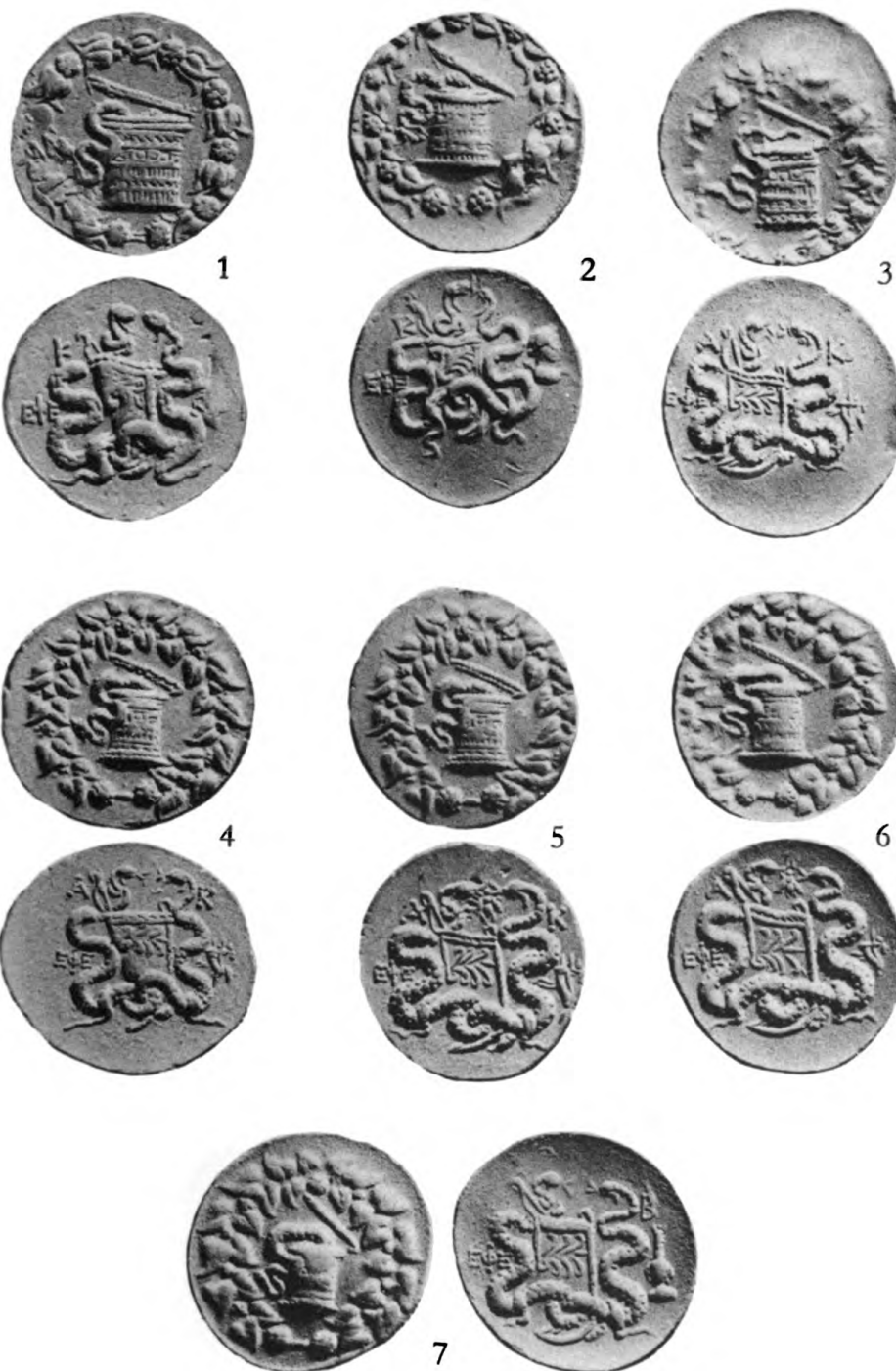
HOARD OF RHODIAN-TYPE DRACHMS



X



HOARD OF RHODIAN-TYPE DRACHMS



DATED CISTOPHORI OF EPHESUS

# XII

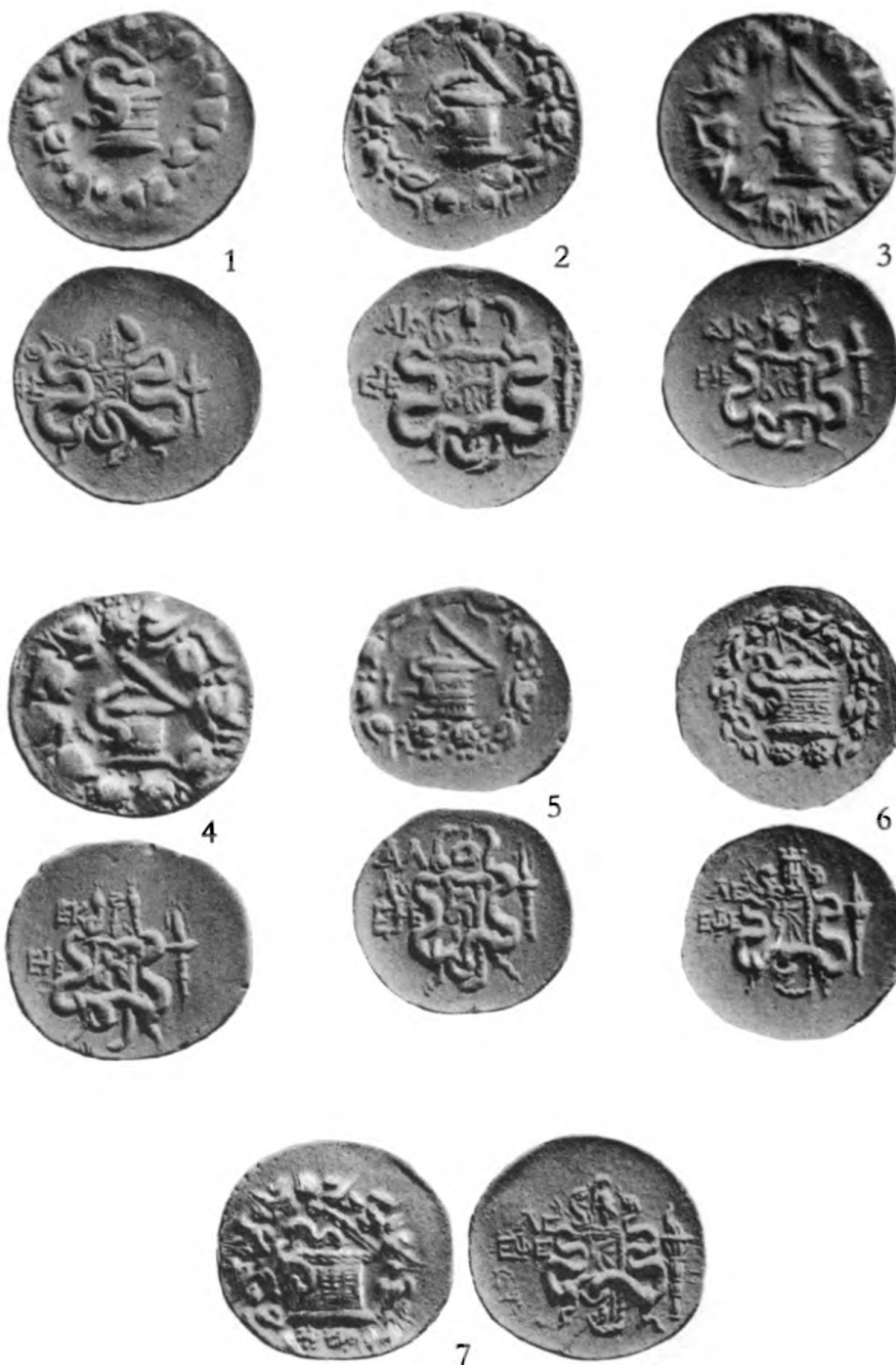


DATED CISTOPHORI OF EPHEBUS

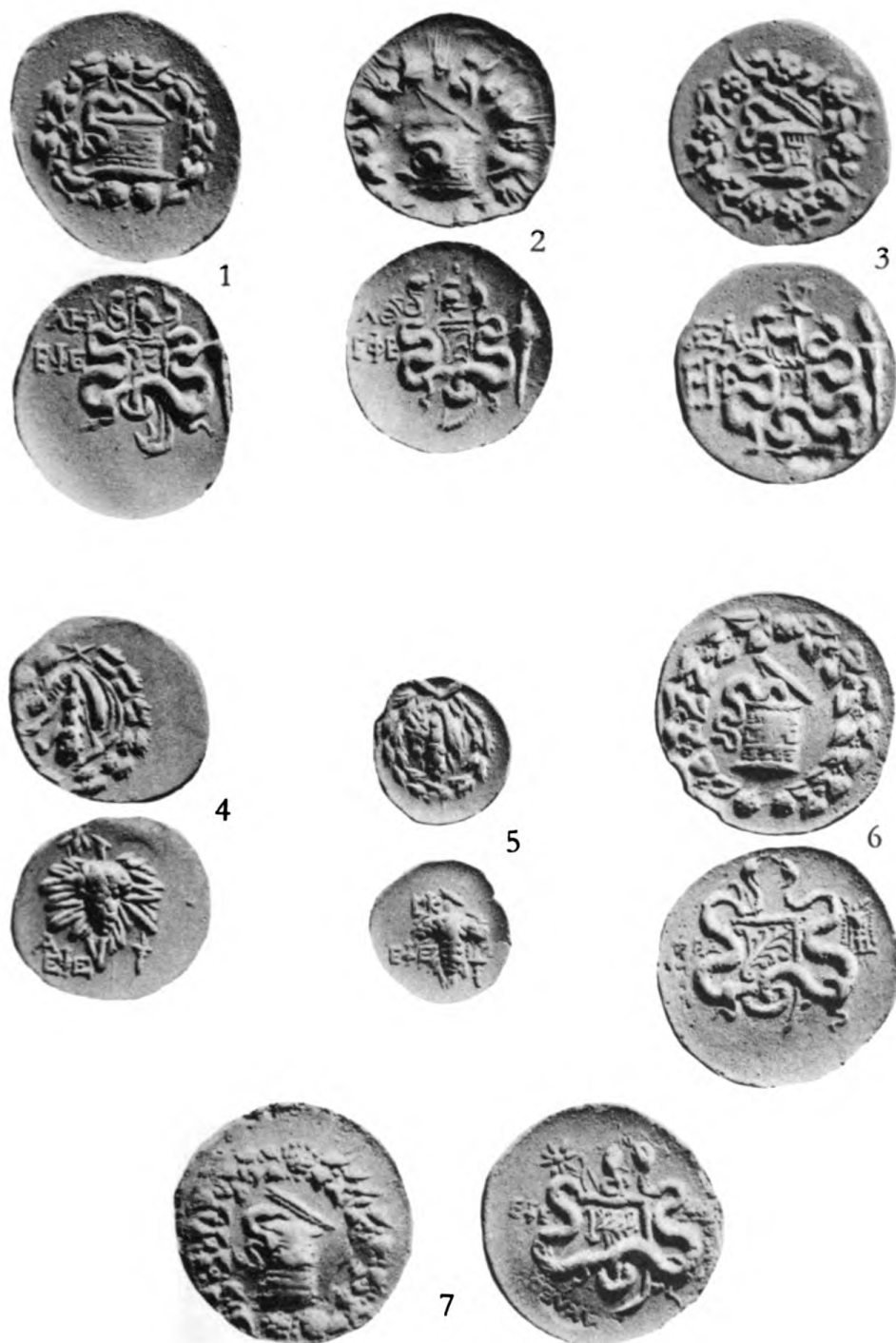


DATED CISTOPHORI OF EPHESUS

# XIV

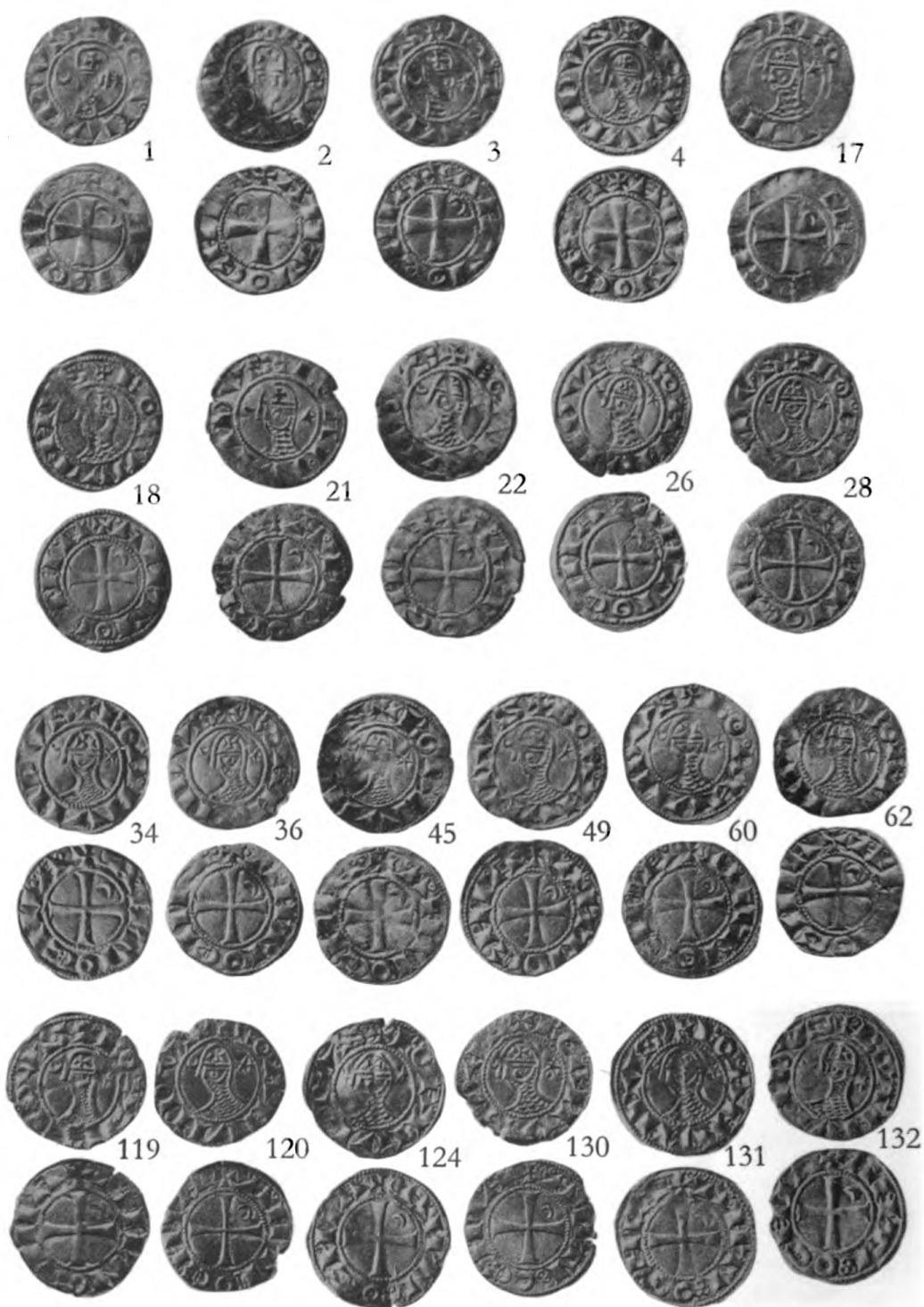


DATED CISTOPHORI OF EPHESUS



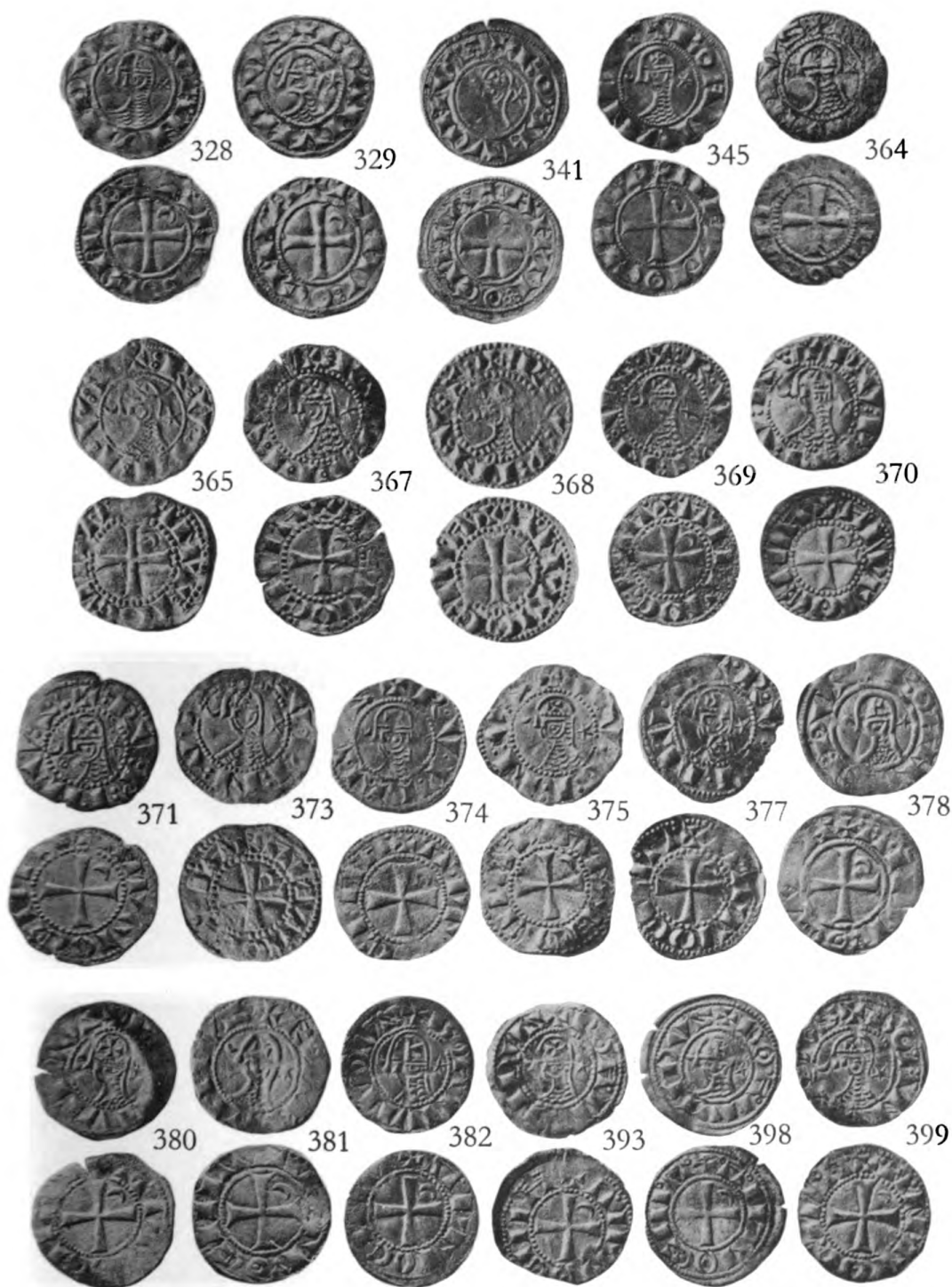
DATED CISTOPHORI OF EPHESUS

# XVI



ANS HOARD OF ANTIOCH DENIERS





ANS HOARD OF ANTIOCH DENIERS



XVIII



TRINITY MEDAL BY HANS REINHART



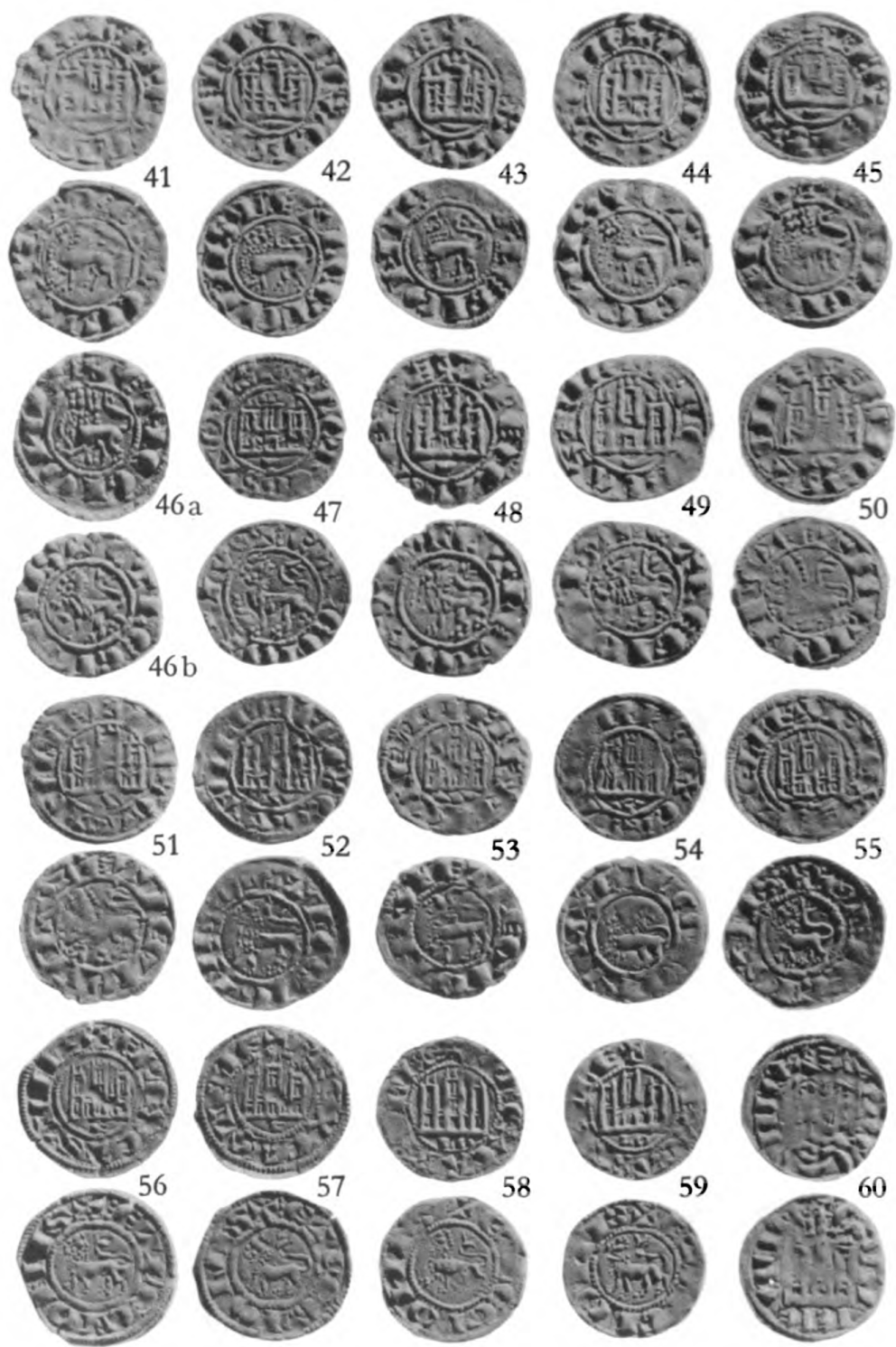


FERNANDO IV OF CASTILE AND LEON



FERNANDO IV OF CASTILE AND LEON

# XXII



FERNANDO IV OF CASTILE AND LEON

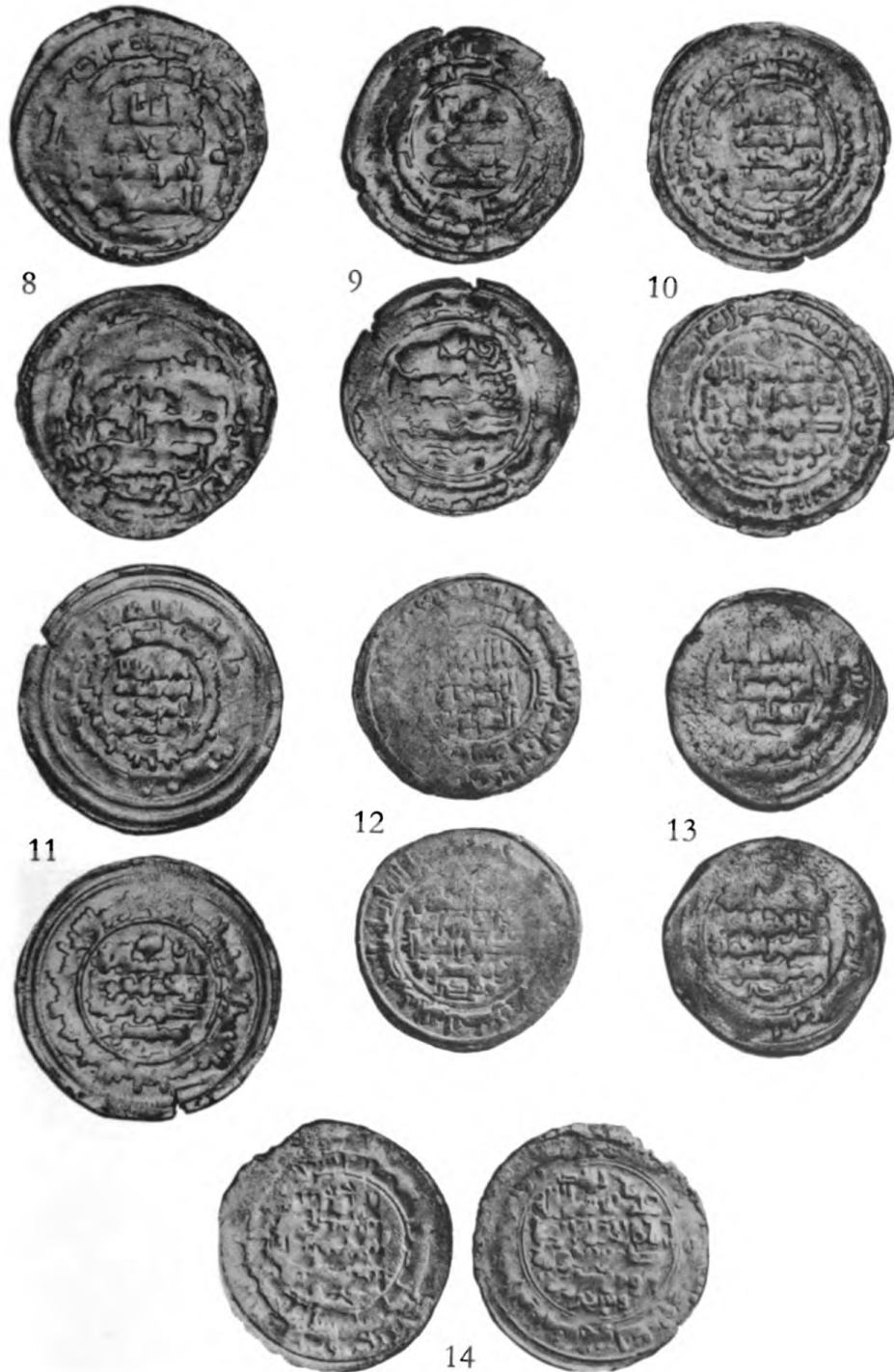


ARAB IMITATIONS OF DODECANUMMIA





COINAGE OF THE ZIYĀRID DYNASTY



COINAGE OF THE ZIYĀRID DYNASTY



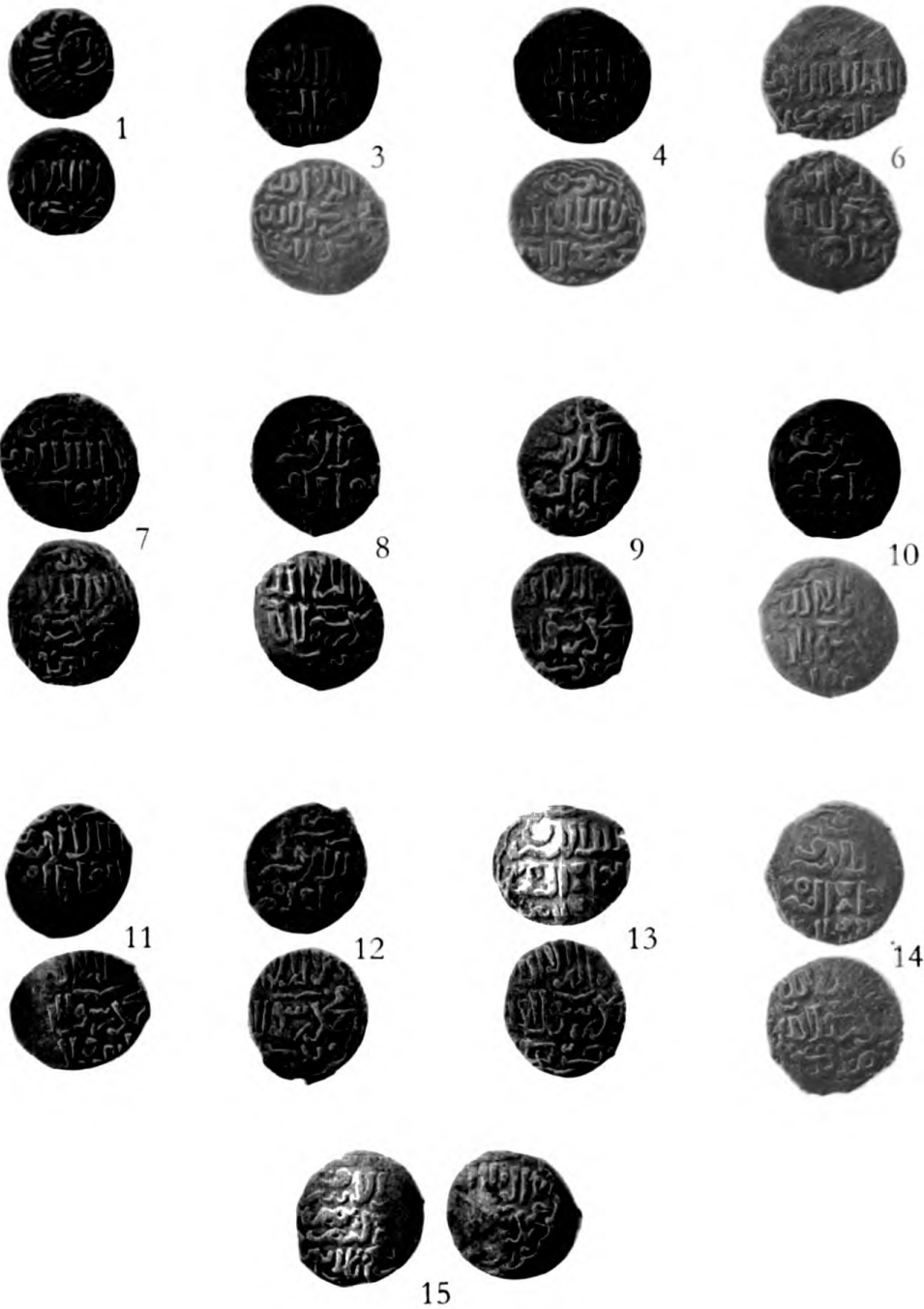


COINAGE OF THE ZIYĀRID DYNASTY



ANOTHER KĀKWAYID NOTE

# XXVIII



SILVER COINS OF BARSBĀY



CONSTANTINOPOLITAN ISSUES OF MAḤMŪD II



CONSTANTINOPOLITAN ISSUES OF MAHMÜD II



CONSTANTINOPOLITAN ISSUES OF MAHMŪD II





CONSTANTINOPOLITAN ISSUES OF MAḤMŪD II







C-67  
THE AMERICAN NUMISMATIC SOCIETY

# MUSEUM NOTES

19



THE AMERICAN NUMISMATIC SOCIETY

NEW YORK

1974



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THE AMERICAN NUMISMATIC SOCIETY

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NEW YORK

1974

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## CONTENTS

### GREEK

JOHN MELVILLE-JONES. Further Notes on the Delian Inscriptions	1
FRED S. KLEINER. The Giresun Hoard	3
THOMAS DREW-BEAR. Representations of Temples on the Greek Imperial Coinage	27

### ROMAN AND BYZANTINE

JOHN NICOLS. The Chronology and Significance of the M. Agrippa Asses	65
TIMOTHY E. GREGORY. The Gold Coinage of the Emperor Constantine VII	87

### ORIENTAL

GERD GROPP. Some Sasanian Clay Bullae and Seal Stones	119
CHRISTOPHER J. BRUNNER. The Chronology of the Sasanian Kušān-šāhs	145
GERNOT ROTTER. The Umayyad Fulūs of Mosul	165
SAMUEL LACHMAN. The Initial Letters on Ottoman Coins of the Eighteenth Century	199

### MODERN

DEXTER C. SEYMOUR. Templeton Reid, First of the Pioneer Coiners	225
THEODORE V. BUTTREY AND ADON A. GORDUS. A Neutron Activation Analysis of the Silver Coinage of Zapata, 1914-1915	267



## FURTHER NOTES ON THE DELIAN INSCRIPTIONS

JOHN MELVILLE JONES

Since my notes on references to coins in these inscriptions were published in 1971<sup>1</sup> some additional points have come to my attention which seem worth publishing, however briefly.

Firstly, I was certainly wrong in suggesting that if the word *τέταρτον*, in the sense of "quarter-stater," refers to a Ptolemaic gold coin, it would have been a gold didrachm. This is most unlikely; the gold octadrachm could never have been thought of as the stater of the series, and in Egypt at least this coin seems to have been called a *μναιεῖον*.<sup>2</sup> The stater would therefore, as normally, be the gold didrachm, and the *τέταρτον* a gold hemidrachm.<sup>3</sup>

In the same context, I have seen correspondence from M. J. Tréheux on the subject of the mysterious entries in the inscriptions which inspired this discussion. He reports that after studying the passages in which the meaningless word printed as *τεττελεκιγια* occurs in *Inscriptions de Delphes*, it can be confidently stated that it is in fact *τεττελεεικια*. I am most grateful to M. Tréheux for the good will which he has shown in making this investigation.

Finally, it has been suggested to me independently by T. Hackens and M. Jessop Price that the "Cretan staters" which are listed in the Delian inventories together with coins of Aegina were the Pseudaeginetica, first discussed by E.S.G. Robinson.<sup>4</sup> I am certain that this is the right explanation. A cataloguer, faced with a group of coins of Aeginetan weight and types, some of which might be actual issues of Aegina, while others would certainly not have been, would have been in a difficult position. He could have avoided the difficulty by using the formula "Aeginetan and Cretan staters," without having to specify how many of each there were. My other suggestions can therefore be discarded.

<sup>1</sup> *ANSMN* 17 (1971), pp. 127-139.

<sup>2</sup> *P. Cairo Zen.* 59022, lines 1 and 13.

<sup>3</sup> E.g., *BMC Ptolemies* p. 23, nos. 80 and 81.

<sup>4</sup> *NC* 1928, pp. 172-198.





## THE GIRESUN HOARD

(PLATES I-IX)

FRED S. KLEINER

In 1933 the Ankara Ethnological Museum acquired a hoard of fifty-five silver coins discovered at Giresun (ancient Cerasus-Pharnaceia) in northern Turkey. The Ankara numismatic collection was transferred to the Istanbul Archaeological Museum in 1955 and placed under the care of Miss Nekriman Olçay, who brought the hoard to my attention.<sup>1</sup>

The Giresun find is of special interest for three reasons: the exceptionally fine preservation of nearly all its coins; the inclusion of several unpublished varieties of tetradrachms of Mithradates VI of Pontus; and the high proportion of dated pieces which aids in establishing a more secure chronology for the undated specimens. Since the provenance of the deposit is recorded, the Giresun hoard also provides evidence for the types of currency circulating in Pontus at the time of its burial.

### PONTUS — MITHRADATES VI

*Obv.*: Diademed head of Mithradates VI, r.

*Rev.*: ΒΑΣΙΛΕΥΣ ΜΙΘΡΑΔΑΤΟΥ ΕΥΠΑΤΟΡΟΣ. Drinking Pegasus, l.; in l. field, star and crescent. All within ivy wreath. Other rev. marks as indicated. Waddington = *Recueil*<sup>2</sup> (1925) I, 1; Price = *NC* 1968, p. 12.

<sup>1</sup> Permission to publish the Giresun hoard was generously granted by Miss Olçay and Dr. Necati Dolunay, Director of the Istanbul Archaeological Museums. The photographs reproduced on PLATES I - IX were taken by the author in May 1971. Travel to Istanbul was made possible by a grant from the Penrose Fund of the American Philosophical Society, which I hereby gratefully acknowledge. I am also indebted to Margaret Thompson for constant advice while preparing this hoard for publication. The 18 Athenian tetradrachms in the hoard (nos. 38-55) were published previously in M. Thompson, *The New Style Silver Coinage of Athens*, *ANSNS* 10 (New York, 1961) pp. 524 f. ("Samsun" hoard).

*Tetradrachms*<sup>2</sup>

1. Istanbul 4124 16.72 ↑ To r.,  $\mathfrak{M}$  (undated; ca. 96).
2. Istanbul 4126 16.73 ↗ To r.,  $\text{B}\Sigma$  (yr. 102 = 96/5) and  $\mathfrak{AF}$ ; below, H.
3. Istanbul 4125 16.77 ↘ To r.,  $\text{E}\Sigma$  (yr. 105 = 93/2) and  $\mathfrak{N}$ ; below,  $\Gamma$ .
4. Istanbul 4127 16.65 ↗ To r.,  $\square\Sigma$  (yr. 106 = 92/1) and  $\mathfrak{N}$ ; below, E.  
Same obv. die: J. Schulman, Nov. 1913, 2496 (month E); Copenhagen, *SNG* 235 (month  $\square$ ).
5. Istanbul 4128 16.75 ↑ To r.,  $\Theta\Sigma$  (yr. 109 = 89/8) and  $\mathfrak{X}$ .  
Same obv. die: N. Davis, *GCNAC* 185; Naville 1, Apr. 1921, 2096.
6. Istanbul 4129 16.72 ↑ To r.,  $\Theta\Sigma$  (yr. 109 = 89/8) and  $\mathfrak{X}$ .  
Same obv. die as no. 5. Same pair of dies: Naville 16, July 1933, 1325.
7. Istanbul 4130 16.74 ↗ To r.,  $\Theta\Sigma$  (yr. 109 = 89/8) and  $\mathfrak{X}$ .  
Same obv. die as nos. 5 and 6. Same pair of dies: Schlessinger 13, Feb. 1935, 1095.
8. Istanbul 4131 16.66 ↗ To r.,  $\Theta\Sigma$  (yr. 109 = 89/8) and  $\mathfrak{K}$ ; below,  $\text{IA}$ . Not in Waddington or Price.
9. Istanbul 4132 16.73 ↑ To r.,  $\text{AI}\Sigma$  (yr. 111 = 87/6) and  $\mathfrak{M}$ ; below,  $\text{IA}$ . Not in Waddington or Price.
10. Istanbul 4133 16.73 ↑ To r.,  $\text{BI}\Sigma$  (yr. 112 = 86/5) and  $\mathfrak{M}$ ; below,  $\Delta$ .  
Same obv. die: Egger, Nov. 1904, 967 (month A); London, *BMC* 44 = Price, pl. I, 5 (month E).
11. Istanbul 4134 16.46 ↑ To r.,  $\text{BI}\Sigma$  (yr. 112 = 86/5) and  $\mathfrak{M}$ ; to l.,  $\mathfrak{P}$ ; below, Z.  
Same obv. die: Glendining, Apr. 1954, 25 (month Z); Hess-Leu, Apr. 1958, 197 (month Z).

<sup>2</sup> Since the Mithradates tetradrachms are dated not only by the year but by the month as well in most cases, it is possible to determine the average longevity of an obverse die employed for this coinage. After each specimen, other published examples of the same obverse die have been listed. It will be noted that duplication of obverse dies is most often restricted to coins struck during the same month and that in no case is a single obverse die utilized in two consecutive years. Nevertheless, a span of five months is recorded twice: year A, months  $\Gamma$  through Z, and  $\text{BI}\Sigma$ , A through E. Despite the fragmentary nature of this compilation, the results are in general agreement with those obtained by Thompson for the New Style tetradrachms of Athens, p. 716 and diagrams, pp. 658–708 (maximum longevity of nine months).

*Obv.*: As above.

*Rev.*: As above, except drinking stag l.

12. Istanbul 4139 16.66↘ To r., ΒΙΣ (yr. 112 = 86/5) and ΜΚ; to l., ΘΡ; below, ΙΑ.

Same obv. die: Paris = Price, pl. I, 6. (month ΙΑ).

13. Istanbul 4140 16.69 ↑ To r., ΒΙΣ (yr. 112 = 86/5) and ΜΚ; to l., ΘΡ; below, ΙΒ.

Same obv. die: Paris = Waddington, pl. II, 14 (month ΙΒ).

14. Istanbul 4141 16.73↘ To r., ΓΙΣ (yr. 113 = 85/4) and ΜΚ; to l., ΘΡ; below, Α.

Same obv. die: Paris = Waddington, pl. II, 15 (month Α).

15. Istanbul 4142 16.72↘ To r., ΓΙΣ (yr. 113 = 85/4) and ΜΚ; below, ΙΑ.

Same obv. die: ANS = ANSMN 16 (1970), pl. VI, 2 (month ΙΑ); Naville 1, Apr. 1921, 2099 (month ΙΑ).

16. Istanbul 4143 16.76↘ To r., ΔΙΣ (yr. 114 = 84/3) and ΜΚ; below, Α. Not in Waddington or Price.

17. Istanbul 4144 16.75 ↑ To r., ΔΙΣ (yr. 114 = 84/3) and ΜΚ; below, Θ.

18. Istanbul 4145 16.75 ↗ To l., ΚΣ (yr. 120 = 78/7); to r., Κ. Not in Waddington or Price.

19. Istanbul 4136 16.59 ↑ To r., Α (yr. 1 = 88) and ΜΕ; below, □. Not in Waddington or Price.

Same obv. die: Egger 41, Nov. 1912, 514 (month Γ); Naville 5, June 1923, 2332 (month Δ); Hirsch, Oct. 1954, 1301 (month □).

20. Istanbul 4135 16.67 ↑ To r., Α (yr. 1 = 88) and ΜΕ; below, Ζ. Not in Waddington or Price.

Same obv. die as no. 18.

21. Istanbul 4137 16.70↘ To r., Γ (yr. 3 = 87/6) and Χ.

22. Istanbul 4138 16.79 ↑ To r., Δ (yr. 4 = 86/5) and Χ.

The 22 Mithradates tetradrachms constitute the largest, best preserved and most recent group of coins in the hoard, as would be expected in a burial within Pontic territory. Only the 18 New Style Athenian tetradrachms (nos. 38–55), the international currency *par excellence* in the 2nd–1st centuries B.C., approach the Pontic issues in quantity.

All but one of the Mithradates tetradrachms bear a date. Nos. 2–18 are dated by the dynastic era beginning in 297/6, while nos. 19–22 are reckoned according to the so-called Pergamene era beginning in 88 B.C., the date of Mithradates' invasion of Asia Minor.<sup>3</sup>

The remaining tetradrachm, no. 1, which bears only the monogram  $\mathfrak{M}$ , is of uncertain date. It has been associated with a second undated issue marked  $\mathfrak{X}$  and attributed to Mithradates' generals of 88, Neoptolemus and Archelaus.<sup>4</sup> The two varieties would together constitute the first in a series of military emissions subsequently dated Β and Γ, according to the Pergamene era. Giresun no. 1 would thus have been struck in 88 B.C.

There are, however, a few considerations which undermine this attractive hypothesis. First, the Giresun monogram  $\mathfrak{M}$  cannot be interpreted as Neoptolemus.<sup>5</sup> Second, the style of the obverse portrait of the  $\mathfrak{M}$  pieces bears little relation to that of 88 B.C., (Giresun nos. 5–8, 19–20). The head, with its light beard, and the diadem, with its free-flowing ends, are much closer to the first dated issues of 96/5 B.C., (e.g. Giresun no. 2) and the obverse portrait on a tetradrachm without any control marks (Sotheby, May 1900, 307) than to the wartime issues. Furthermore, an example of the  $\mathfrak{X}$  issue reproduced by Waddington<sup>6</sup> shares an obverse die with the Giresun tetradrachm of 96/5 B.C. (no. 2). The  $\mathfrak{M}$ , as well as the  $\mathfrak{X}$ , issue probably immediately precedes the year ΒΣ.<sup>7</sup> The two issues constitute an intermediary stage between the tetradrachms without control marks and the dated series proper, (PLATE I, 1–2).

<sup>3</sup> On the eras used on the tetradrachms and staters of Mithradates VI, see, most recently, M. J. Price, "Mithradates VI Eupator, Dionysus, and the Coinages of the Black Sea," *NC* 1968, pp. 1–12; and P. Pollak, "A Bithynian Hoard of the First Century B.C.," *ANSMN* 16 (1970), pp. 45–56. Cf. J. Eckhel, *Doctrina Numorum Veterum* 2 (Leipzig, 1794), pp. 381–2; T. Reinach, "Rois de Bithynie," *RN* 1887, p. 351, n. 2; and Reinach, *Trois royaumes de l'Asie mineure* (Paris, 1888), pp. 133 and 195.

<sup>4</sup> Price, p. 2, with previous bibliography. Price mentions a variant of the monogram  $\mathfrak{M}$ ,  $\mathfrak{M}$ , which contains all the letters of the name ΝΕΟΠΤΟΛΕΜΟΣ.

<sup>5</sup> Nor can the monogram published by Pollak, pl. VI, 1.

<sup>6</sup> Waddington, *Recueil*<sup>3</sup>, pl. B, 8.

<sup>7</sup> This view has been upheld most recently by Pollak, p. 47.








The 22 Pontic pieces in the Giresun hoard were thus all struck between 96 and 77; 17 were issued between 89 and 83. No coin fills the gap between 83 and 78/7, the year no. 18 was minted. Three explanations are possible. First, the hoarder may have gradually accumulated the Pontic pieces, (none of which shows any evidence of having circulated for many years), and may have been unable to put aside any coins during the time immediately following the defeat of Mithradates in 84. Such a case would not be unique. Second, the tetradrachm of 78/7 may have been added to the deposit in modern times, either by a dealer or during the transfer of the Ankara collection to Istanbul. This is very unlikely. Dealers do not normally add unpublished FDC tetradrachms of Mithradates Eupator to hoards; the care taken by Miss Olçay in preparing the inventory of the Ankara coins virtually eliminates the possibility of contamination during the transfer to Istanbul. A third possibility remains. In the corpus of dated tetradrachms of Mithradates VI, (Appendix p. 00), there is a conspicuous absence of recorded issues between the heavy wartime output of 84 and that of 75 B.C. While the possibility of an irregular accumulation of savings cannot be ruled out, I am inclined to believe that the lacuna in the Giresun hoard between 83 and 78/7 accurately reflects the decreased mint activity of the years following Mithradates' defeat by the Romans.

## BITHYNIA — NICOMEDES II and III

*Obv.*: Diademed head of Nicomedes II r.

*Rev.*: ΒΑΣΙΛΕΩΣ ΕΠΙΦΑΝΟΥΣ ΝΙΚΟΜΗΔΟΥ. Zeus standing l., crowning king's name; in l. field, eagle on fulmen. Other rev. marks as indicated.

*Tetradrachms*

23. Istanbul 13448 16.76 ↑ To l.,  and ΖΝΡ (yr. 157 = 141/0).
24. Istanbul 13447 16.82 ↑ To l.,  and □ΞΡ (yr. 166 = 132/1).
25. Istanbul 13449 16.86 ↑ To l.,  and ΒΟΡ (yr. 172 = 126/5).
26. Istanbul 13452 16.58 ↑ To l.,  and ΖΟΡ (yr. 177 = 121/0).
27. Istanbul 13451 16.54 ↑ To l.,  and ΑΠΡ (yr. 181 = 117/6).
28. Istanbul 13446 16.77 ↑ To l.,  and ΔΠΡ (yr. 184 = 114/3).
29. Istanbul 13450 16.61 ↑ To l.,  and ΣϞΡ (yr. 197 = 101/0).

The seven tetradrachms of Nicomedes II and III carry dates reckoned according to the Bithynian era, which began in 297/6 B.C. when Zipoetes of Bithynia assumed the title of king. The Pontic and Bithynian eras are thus identical, and it is very likely that the synchronization is due to the adoption of the Bithynian era by Mithradates VI.<sup>8</sup>

Although contemporary issues of Mithradates VI and Nicomedes III and IV are frequently found together, the Bithynian pieces in this hoard are much older than the Pontic coins. The latest Bithynian tetradrachm is dated 101/0, while the Mithradates issues are no earlier than 97/6 and include one specimen dated 78/7 B.C. Since the Nicomedes pieces show little sign of wear, it is possible that they were acquired at an early date by the hoarder and retained as savings, before being buried with other pieces drawn from among those in current circulation. Although Giresun is situated some distance from Bithynia, geographical factors alone cannot account for the discrepancy in date—some of the Athenian coins in the hoard are more recent than the latest Bithynian tetradrachm.<sup>9</sup>

### CISTOPHORI

*Obv.*: Cista mystica within an ivy wreath.

*Rev.*: Bow-case between two serpents. Other rev. marks as indicated. Pinder numbers correspond to M. Pinder, "Über die Cistophoren," *Abh. Berlin* 1885, pp. 533–571.

#### *Tetradrachms*

30. Istanbul 13453 12.46 ↑ To l.,  $\overline{\text{M}}$  (Pergamum); to r., serpent staff; above center, ΔI (undated; ca. 120–95). Pinder 95.
31. Istanbul 13454 12.58↘ To l., ΕΦΕ (Ephesus); to r., torch; above center, serpent staff; to l., ΜΕ (yr. 45 = 90/89). Pinder 36.
32. Istanbul 13455 12.48↘ To l., ΑΠΑ (Apameia); to r., double flute; above center, ΑΤΤΑ/ΛΟΥ (undated; ca. 90–80). Pinder 7.

<sup>8</sup> The synchronization of the Pontic and Bithynian eras is discussed by Pollak, pp. 51–2. Cf. Reinach, *Trois royaumes*, p. 133 and W. H. Bennett, "The Death of Sertorius and the Coin," *Historia* 10 (1961), p. 461.

<sup>9</sup> So too is the dated cistophorus of Ephesus (no. 31). The date of the Athenian tetradrachms is still debated; see the discussion below, pp. 16 ff.

The three cistophori in the Giresun hoard were struck at three different mints and pose three distinct dating problems. The cistophorus of Ephesus (no. 31) is dated ME, the 45th year of an era reckoned from the formation of the Roman province of Asia in 134/3 B.C., i.e. 90/89. It is thus closely contemporary to the majority of Pontic coins in the hoard. Provincial years do not appear, however, on the Pergamum and Apameia pieces (nos. 30 and 32). Although there is universal agreement that these cistophori were struck between 133 and 67, a range of two-thirds of a century is too indefinite. According to the traditional chronology these coins could be much earlier or later than the other hoard pieces. Greater precision, however, is possible.

During the last two decades a great deal of hoard material has appeared which permits a clarification of the chronology of the late cistophoric coinage. A brief review of this material is necessary in order to date the two Giresun cistophori which are not marked with provincial years.

In the Tables below,<sup>10</sup> the cistophori of Pergamum, Ephesus and Apameia are divided into chronological groups as follows:

<sup>10</sup> Of the eight hoards discussed below, only the Mihaliç find has been adequately published. The entire contents of the eight burials is summarized here, prior to detailed publication:

*Asia Minor 1928* (IGCH 1455): Pergamum 57; Ephesus 52; Sardes 7; Thyatira 1; Tralles 35; Apameia 5; unc. 1. Disposition: ANS 65 and BM 16. G. F. Hill, *NC* 1929, pp. 73–76; F. Kleiner, *ANSMN* 18 (1972), p. 22, n. 15.

*Asia Minor 1955* (IGCH 1458): Pergamum 15; Ephesus 15; Tralles 7; Apameia 5; Laodiceia 1. Disposition: ANS 43.

*Asia Minor 1971* (IGCH 1456): Pergamum 4; Ephesus 4; Tralles 1. Disposition: New York, private collection 9; cast record at ANS.

*Asia Minor 1935* (IGCH 1459): Pergamum 196; Ephesus 35; Smyrna 1. Disposition: ANS 24. D. Kienast, *JNG* 11 (1961), p. 167, no. 33.

*Asia Minor 1970* (IGCH 1460): Pergamum 5; Ephesus 7; Tralles 16; Apameia 2. Disposition: ANS 30.

*Asia Minor 1966* (IGCH 1461): Pergamum 21; Ephesus 3; Tralles 2. Dispersed; cast record at ANS. Information courtesy of P. R. Franke.

*Asia Minor 1961* (IGCH 1462): Pergamum 24; Tralles 1. Dispersed; cast record at ANS. Information courtesy of C. Boehringer.

*Mihaliç 1929* (IGCH 1358): Pergamum 114; Ephesus 17; Nysa 2; Tralles 90; Apameia 47; Laodiceia 1. Disposition: Istanbul 271. K. Regling, *Frankfurter Münzzeitung* 34 (1932), pp. 506–10.



<i>Pergamum</i>	Group I	changing symbols in rev. r. field.
	Group II	serpent staff in rev. r. field; changing initials between serpents' heads (Giresun no. 30).
	Group III	serpent staff in rev. r. field; changing initials and $\Pi\Upsilon$ between serpents' heads.
<i>Ephesus</i>	Group I	changing symbols in rev. r. field.
	Group II	torch in rev. r. field; changing symbols between serpents' heads; dated from 134/3 (Giresun no. 31).
<i>Apameia</i>	Group I	changing symbols in rev. r. field.
	Group II	double flute in rev. r. field; changing names between serpents' heads (Giresun no. 32).

## HOARDS OF CISTOPHORI

	Pergamum Group I	Ephesus Group I	Apameia Group I	Ephesus Group II	Pergamum Group II	Pergamum Group III	Apameia Group II
<i>Asia Minor 1928</i>	57	25	5	27			
128 B.C. (IGCH 1455)				$\square$			
<i>Asia Minor 1955</i>	6	2	5	13	9		
104 B.C. (IGCH 1458)				$\wedge$			
<i>Asia Minor 1971</i>	1			4	3		
ca. 100 B.C. (IGCH 1456)				$\wedge$			
<i>Asia Minor 1935</i>	7			35	192		
98 B.C. (IGCH 1459)				$\wedge\square$			
<i>Asia Minor 1970</i>	1	2	2	5	4		
95 B.C. (IGCH 1460)				$\wedge\Theta$			
<i>Asia Minor 1966</i>	2			3	14	5	
ca. 88 B.C. (IGCH 1461)				$M\square$			
<i>Asia Minor 1961</i>	1				10	13	
ca. 85 B.C. (IGCH 1462)							
<i>Mihaliç 1929</i>				17	6	108	47
76 B.C. (IGCH 1358)				NE			

LATE CISTOPHORI OF PERGAMUM  
AND APAMEIA IN HOARDS

	Pergamum Group II	Pergamum Group III	Apamea Group II
All hoards	238	126	47
Burial 128 B.C.			
Burial 105–95	208		
Burial 90–85	24	18	
Burial 76 B.C.	6	108	47
Giresun hoard	1		1
Burial 77 B.C.	worn		ex. fine

The cistophoric hoards containing examples of these types are listed at the left in order of burial date, with their contents itemized under the respective group headings. In the case of Ephesus Group II, the latest dated piece is also specified.

This tabulation of the hoard evidence leads to the following conclusions regarding the chronology of Pergamum and Apameia Groups II:

1. The inception of Pergamum Group II must postdate 133. In the burial of 128, neither the latest varieties of Group I<sup>11</sup> nor any specimen of Group II is present. The striking of Pergamum Group II cistophori was probably begun about a decade later than has been previously assumed, ca. 123 B.C.
2. Cistophori of Pergamum Group III do not appear in any hoards prior to 88 B.C. In the burial of 88, they are less numerous than those of Group II; in the Mihaliç deposit of 76 B.C., Group II pieces represent only 5.25% of the Pergamene cistophori in the hoard. The addition of the monogram ΠΥ to the Pergamene reverses therefore may be placed between 95 and 90 B.C. The presence of a Group II tetradrachm in the late Giresun hoard is exceptional; the specimen shows signs of long circulation.
3. No specimen of Apameia Group II appears in any hoard prior to 77 B.C. In the Mihaliç burial of 76, 47 pieces are present in

<sup>11</sup> As established by die linkage.

excellent condition; the single Apameia cistophorus in the Giresun find is comparably well-preserved. Striking of Group II cistophori must not have begun at Apameia until long after 133, probably ca. 90–80, and may, in fact, be connected with the presence of Mithridates VI in Asia.<sup>12</sup>

4. Giresun nos. 30 and 32 should be dated 120–95 and 90–80 B.C. respectively.

### CAPPADOCIA — ARIARATHES VI

*Obv.*: Diademed head of Ariarathes VI, r.

*Rev.*: ΒΑΣΙΛΕΥΣ ΑΡΙΑΡΑΘΟΥ ΕΠΙΦΑΝΟΥΣ Athena standing, l., holding Nike. Other rev. marks as indicated.

#### *Drachm*

33. Istanbul 13456 4.05\ To l., A; to r., Δ; below, A. (Ca. 125–111)

The Ariarathes VI drachm, Simonetta Type 1,<sup>13</sup> carries an A in the exergue which traditionally has been thought to denote year 1 of the king's reign. Recently, however, O. Mørkholm has demonstrated conclusively that these exergual letters lack any such significance. The Giresun piece, which shows signs of circulation, cannot be dated more precisely than ca. 125–111, the probable span of Ariarathes VI's reign.<sup>14</sup>

### CAPPADOCIA — ARIARATHES IX

*Obv.*: Diademed head of Ariarathes IX r.

*Rev.*: ΒΑΣΙΛΕΥΣ ΑΡΙΑΡΑΘΟΥ ΕΥΣΕΒΟΥΣ. Athena standing, l., holding Nike. Other rev. marks as indicated.

<sup>12</sup> A full discussion of this possibility will be published elsewhere.

<sup>13</sup> B. Simonetta, "Notes on the Coinage of the Cappadocian Kings," *NC* 1961, pp. 9–50.

<sup>14</sup> O. Mørkholm, "The Classification of Cappadocian Coins," *NC* 1969, pp. 27–9, with previous bibliography, esp. Mørkholm, "Some Cappadocian Die-Links," *NC* 1964, pp. 21–5. (Cf. B. Simonetta, *RIN* 18 (1970), pp. 45–61.

*Drachm*

34. Istanbul 13457 3.84 ↑ To l., ☉; below, ΙΓ (yr. 13 = 87).

The exergual ΙΓ denotes the 13th year of the reign of Ariarathes IX, which began in 99 B.C. The obverse portrait resembles that of Mithradates VI of Pontus, the father of Ariarathes IX, but is almost certainly that of the son. The assimilation of features is most likely due more to political consideration than to family resemblance, for it was only the power and prestige of Mithradates that insured the Cappadocian throne for his son.<sup>15</sup>

## CAPPADOCIA — ARIOBARZANES I

*Obv.*: Diademed head of Ariobarzanes I, r.

*Rev.*: ΒΑΣΙΛΕΩΣ ΑΡΙΟΒΑΡΖΑΝΟΥ ΦΙΛΟΠΩΜΑΙΟΥ. Athena standing, l., holding Nike. Other rev. marks as indicated.

*Drachm*

35. Istanbul 13458 4.18 ↗ To l., Θ and Μ; to r., unc. letter or monogram; below, unc. letter. (95–85)

The exergual letter is uncertain, but can be no later than year I. The drachm was struck between 95, the year of Ariobarzanes I's accession to the Cappadocian throne, and 85, and is quite worn.

## SYRIA — ANTIOCHUS VII

*Obv.*: Diademed head of Antiochus VII, r., within a laurel wreath.

*Rev.*: ΒΑΣΙΛΕΩΣ ΑΝΤΙΟΧΟΥ ΕΥΕΡΓΕΤΟΥ. Athena standing l., holding Nike. All within a laurel wreath. Other rev. marks as indicated. N. numbers correspond to E. T. Newell, *The Seleucid Mint of Antioch* (New York, 1918), pp. 73–82.

<sup>15</sup> For a series of earlier portraits of Ariarathes IX, see O. Mørkholm, "The Coinage of Ariarathes VII and Ariarathes IX of Cappadocia," *Essays Robinson*, pp. 241–58, pls. 30–3.

*Tetradrachms*

36. Istanbul 13459 (N. 293) 16.26 ↑ To l., ♠ and A; between Athena and inscription, A; to r., B. (Mint of Antioch, 138–129)
37. Istanbul 13460 (N. 296) 16.13 ↑ To l., ♠ and A; between Athena and inscription, T; to r., A. (Mint of Antioch, 138–129)

The two Syrian tetradrachms were struck during the short reign of Antiochus VII, 138–129 B.C.

## ATTICA — ATHENS

*Obv.*: Head of Athena Parthenos r. in Attic helmet. All within border of dots.

*Rev.*: ΑΘΕ. Owl standing on amphora. All within olive wreath. Other rev. marks as indicated. The numbers correspond to M. Thompson, *The New Style Silver Coinage of Athens*, ANSNS 10 (New York, 1961).

*Tetradrachms*

38. Istanbul 13475 (Th. 379g) 16.77 ↑ ΠΟΛΥΧΑΡΜ - ΝΙΚΟΓ - ΘΕ-  
ΜΙΣΤΟΚΛΗ; on amphora, Ι; below, ΜΕ; to l., winged caduceus.  
(165/4 or 132/1)
39. Istanbul 13474 (Th. 447f) 16.54 ↑ ΕΠΙΓΕΝΗ - ΣΩΣΑ[Ν]ΔΡΟΣ -  
ΕΥΜΗ; on amphora, Γ; below, ΣΦ; to l., eagle on fulmen. (158/7 or  
125/4)
40. Istanbul 13462 (cf. Th. 583d/e) 16.98 ↑ ΑΜΜΩΝΙΟΣ - ΚΑΛΛΙΑΣ  
- ΛΥΣΑΝ; on amphora, Β; below, ΣΦ; to r., two torches. (150/49  
or 117/6)
41. Istanbul 13473 (Th. 621h) 16.69 ↑ ΣΩΚΡΑΤΗΣ - ΔΙΟΝΥΣΟΔΩ  
- ΑΘΗΝΟ; on amphora, Δ; below, ΣΟ; to r., Apollo Delios. (148/7  
or 115/4)
42. Istanbul 13476 (Th. 639a) 16.62 ↑ ΜΗΤΡΟΔΩΡΟΣ - ΔΗΜΟΣΘΕ  
- ΑΡΧΙΑΣ; on amphora, Ε; below, ΣΦ; to r., bunch of grapes. (147/6  
or 114/3)
43. Istanbul 13464 (Th. 721h) 16.83 ↑ ΔΑΜΩΝ - ΣΩΣΙΚΡΑΤΗΣ  
- ΝΙΚΟΝΟ; on amphora, Δ; below, ΣΟ; to r., quiver and bow.  
(141/0 or 108/7)

44. Istanbul 13466 (Th. 780d) 16.22 ↑ ΗΡΑΚΛΕΙΔΗΣ - ΕΥΚΛΗΣ  
- ΔΙΟΝ[Υ]ΣΟΓ; on amphora, B; below, ΜΕ Σ; to r., winged Tyche  
with amphora.  
(137/6 or 104/3)
45. Istanbul 13467 (Th. 791b) 16.51 ↑ ΗΡΑΚΛΕΙΔΗΣ - ΕΥΚΛΗΣ -  
ΣΩΣΙΚΡ; on amphora, H; below, ΜΕ; to r., winged Tyche with  
amphora.  
(137/6 or 104/3)
46. Istanbul 13468 (Th. 812b) 16.48 ↑ ΙΚΕΣΙΟΣ - ΑΣΚΛΗΠΙΑΔΗΣ  
- ΧΡΥΣ; on amphora, A; below, [ΜΕ]; to r., wreath.  
(135/4 or 102/1)
47. Istanbul 13469 (Th. 816) 16.61 ↑ ΙΚΕΣΙΟΣ - ΑΣΚΛΗΠΙΑΔΗΣ -  
ΘΕΟ; on amphora, Z; below, ΜΕ; to r., wreath.  
(135/4 or 102/1)
48. Istanbul 13465 (Th. 913) 16.47 ↑ ΔΗΜΤΡΙΟΣ - ΑΓΑΘΙΠΠΟΣ;  
on amphora, Z; below, Α; to r., Dioscuri pilei.  
(131/0 or 98/7)
49. Istanbul 13461 (Th. 994b) 15.80 ↑ ΑΡΟΠ[Ι]ΟΣ - ΜΝΑΣΑΓΟ - Α -  
ΠΟΛ; on amphora, ?; below, ΣΟ; to r., winged Agon.  
(128/7 or 95/4)
50. Istanbul 13463 (Th. 1002b) 16.20 ↑ ΑΡΟΠΟΣ - ΜΝΑΣΑΓΟ - [Α] -  
ΠΟΛ; on amphora, Z; below, ΑΠ; to r., winged Agon.  
(128/7 or 95/4)
51. Istanbul 13470 (Th. 1016a) 16.41 ↑ ΞΕΝΟΚΛΗΣ - ΑΡΜΟΞΕΝΟΣ;  
on amphora, B; below, ΑΠ; to r., coiled serpent.  
(127/6 or 94/3)
52. Istanbul 13472 (Th. 1068) 16.92 ↑ ΞΕΝΟΚΛΗΣ - ΑΡΜΟΞΕΝΟΣ;  
on amphora, A; below, ΑΠ; to r., dolphin and trident.  
(124/3 or 91/0)
53. Istanbul 13471 (Th. 1075b) 16.67 ↑ ΞΕΝΟΚΛΗΣ - ΑΡΜΟΞΕΝΟΣ;  
on amphora, E; below, [ΠΡ]; to r., dolphin and trident.  
(124/3 or 91/0)
54. Istanbul 13477 (Th. 1155b) 16.69 ↑ ΜΝΑΣΕΑΣ - ΝΕΣΤΩΡ; on am-  
phora, Λ; below, ΕΡ; to r., kerchnos.  
(120/19 or 87/6)
55. Istanbul 13478 (Th. 1365b) 16.59 ↑ Ο ΔΕΜΟΣ; to r., Perseus or Demos.

The chronology of the Athenian New Style silver coinage has been the subject of controversy since the publication of Margaret Thompson's definitive study in 1961 and D. M. Lewis's proposal of an alternate arrangement in 1962.<sup>16</sup> According to Thompson's "high chronology" the inception of the New Style coinage is to be placed in 196/5 and its termination in 88/7; in his "low chronology" Lewis begins the series about 33 years later, ca. 164, and suggests an end toward the close of the Roman Republican period.

In my catalogue of the Giresun pieces both the "high" and "low" dates for the Athenian tetradrachms are given, although the evidence of this find seems to support Lewis's chronological arrangement rather than Thompson's. As Lewis pointed out in 1962,<sup>17</sup> according to the high chronology there is a gap between the latest Athenian tetradrachm (no. 54, 120/19 or 87/6) and the O ΔΕΜΟΣ imitation which is almost certainly to be dated about 86 B.C.;<sup>18</sup> the low chronology eliminates this lacuna. Lewis's argument, based on the Athenian material alone, is strengthened by the complete record of the Giresun find: the Pontic pieces in the hoard (nos. 1–22) were struck between 97 and 77, two of the cistophori (nos. 31–2) between 90 and 80, and two of the Cappadocian drachms (nos. 34–5) between 95 and 85.

<sup>16</sup> M. Thompson, *Athens*; D. M. Lewis, "The Chronology of the Athenian New Style Coinage," *NC* 1962, pp. 275–300; Thompson, "Athens Again," *NC* 1962, pp. 301–33. For recent discussions of the problem, and the possibility that the New Style coinage may have been introduced about 196 and terminated about 50, see M. J. Price, "The New-Style Coinage of Athens. Some Evidence from the Bronze Issues," *NC* 1964, pp. 27–36; T. Hackens, "Trésor hellénistique trouvé à Délos en 1964," *BCH* 89 (1965) pp. 503–34, esp. pp. 511–17; C. A. Hersch, "The Agrinion Find and the Problem of the Chronology of the Roman Republican Coinage during the Second Century B.C.," *NC* 1966, pp. 71–93; G. le Rider, *Monnaies crétoises du V<sup>e</sup> au I<sup>er</sup> siècle av. J.-C.*, (Paris, 1966), pp. 281–4; Price, "The Urfa Hoard of 1924," *NC* 1969, pp. 10–14; Thompson, *The Agrinion Hoard*, *ANSNM* 159 (New York, 1968) esp. p. 108, n. 136; H. B. Mattingly, review of *The Agrinion Hoard*, *NC* 1969, pp. 326–33; C. M. Kraay, *Greek Coins and History* (London, 1969), pp. 11–4; Mattingly, "Some Problems in Second Century Attic Prosopography," *Historia* 20 (1971), pp. 34–43; Mattingly, "Some Third Magistrates in the Athenian New Style Coinage," *JHS* 91 (1971), pp. 85–93. C. Boehrer, *Zur Chronologie mittelhellenistischer Münzserien 220–160 v. Chr.*, *AMuGS* 5 (Berlin, 1972), pp. 22–31, 200–4.

<sup>17</sup> *NC* 1962, p. 285.

<sup>18</sup> Thompson, *Athens*, pp. 444–9.

In support of Thompson's chronological arrangement it must nevertheless be stated that the Bithynian coins in the Giresun hoard (nos. 23–9) were struck as early as 141–100, and that the two Syrian tetradrachms (nos. 36–7) are dated 138–129 B.C. It is also true that new Athenian money was in short supply after 120/19 (Thompson) or 87/6 (Lewis) and that no later Athenian coins are present in any of the recorded Asia Minor hoards.<sup>19</sup>

Whether one considers the Giresun find as a combination of earlier deposits, a gradual accumulation of savings or a currency hoard, the group of 55 coins found in 1933 must have been buried about 77 B.C., the date of the latest Mithradates tetradrachm (no. 18). This date is confirmed by the large number and excellent condition of the hoard pieces struck in the 80's (nos. 5–17, 19–22, 31–2, 34, 54–5) and the worn state of the Cappadocian drachm struck between 95 and 85 B.C. Such a date would also explain the peculiar conglomeration of material in the deposit, which reflects the movement of Mithradatic troops in the 80's from Pontus to Western Asia Minor to Athens, and the close relationship between Pontus and Cappadocia during the reign of Ariarathes IX, the son of Mithradates Eupator. I do not wish to imply that the Giresun hoard is the booty of a Pontic soldier, but rather that the currency circulating in Pontus in the late 80's must have included a great deal of foreign material brought back by the king's army. The unparalleled presence of cistophori in a Pontic hoard must certainly be explained in this manner;<sup>20</sup> the Athenian pieces are best understood as recent issues circulating in Athens during the occupation of the city by Mithradates' forces.

<sup>19</sup> Thompson, *Athens*, p. 542; *NC* 1962, p. 323.

<sup>20</sup> Cistophori are rarely found outside Western Asia Minor. On the circulation of cistophori, see H. Seyrig, "Questions cistophoriques," *RN* 1963, pp. 25–6; and F. Kleiner, "The Dated Cistophori of Ephesus," *ANSMN* 18 (1972) pp. 17–32. Between 88 and 84 B.C., Mithradates Eupator controlled the mint at Pergamum and issued staters and tetradrachms of Attic weight. There is no evidence that the Pergamene mint suspended the striking of cistophori at this time. The introduction of Pontic coins in Asia Minor and the simultaneous production of Attic and cistophoric weight silver at the Pergamene mint would have necessitated the adoption of an official rate of exchange between the two currencies, which, in turn, would have facilitated the actual exchange of funds between the two areas.



The Giresun find augments a growing body of hoard material which attests to an extensive exchange of funds across international frontiers during and immediately after the First Mithradatic War. Among the other finds which bear witness to this movement of troops and money, the following are most closely related to the Giresun burial:

*Piraeus hoard*<sup>21</sup> Almost certainly a burial on the eve of the sack of Athens in 86; Athenian pieces through ΑΠΕΛΛΙΚΩΝ - ΓΟΡΓΙΑΣ (121/0 or 88/7) and 2 Mithradates VI tetradrachms dated 88 B.C.

*Dipylon hoard*<sup>22</sup> A second burial resulting from the same circumstances as the Piraeus hoard; Athenian pieces through ΒΑΣΙΛΕ ΜΙΘΡΑΔΑ - ΤΗΣ - ΑΡΙΣΤΙΩΝ (121 or 87) and 4 Mithradates VI tetradrachms dated 88 B.C.

*Abruzzi hoard*<sup>23</sup> Probably a composite of earlier hoards and recently minted coins brought to Italy by a Sullan veteran; Athenian pieces through ΑΠΕΛΛΙΚΩΝ - ΓΟΡΓΙΑΣ (121/0 or 88/7) and Sullan issues  $\overline{\text{M}}$ - $\overline{\text{M}}$  of 86/5; Achaean League triobols; drachms of Ariarathes V of Cappadocia; 2 posthumous Lysimachi of Byzantium; 1 Nicomedes III tetradrachm of 105/4; 7 Mithradates VI tetradrachms of 90/89; about 200 denarii of the time of Sulla.

*Limani-Chersonisou (Cretan II) hoard*<sup>24</sup> Pontic, Bithynian and Attic tetradrachms brought to Crete and buried about the time of the Giresun hoard; Athenian pieces through ΑΡΧΙΤΙΜΟΣ - ΔΗΜΗΤΡΙ (117/6 or 84/3); 2 tetradrachms of Nicomedes IV dated 92/1 and 90/89; 1 Mithradates VI tetradrachm dated 76/5; local Cretan material.

*Carystus I hoard*<sup>25</sup> Athenian pieces through ΑΠΕΛΛΙΚΩΝ - ΓΟΡΓΙΑΣ (121/0 or 88/7) found with 3 Ο ΔΕΜΟΣ imitations and about 25 drachms of Carystus.

<sup>21</sup> IGCH 337. W. Schwabacher, "A Find from the Piraeus," NC 1939, pp. 162-6; Thompson, *Athens*, pp. 503 f.; Lewis, NC 1962, p. 281; Thompson, NC 1962, p. 316.

<sup>22</sup> IGCH 339. S. A. Kumanudes, *Athenaion* 1874, p. 691; R. Weil, *Arch. Zeit.* 1876, pp. 163-6; A. von Sallet, *Z/N* 1877, pp. 227 f.; Weil, *AM* 1881, pp. 324-37; Thompson, *Athens*, pp. 507-9; Lewis, NC 1962, p. 282; Thompson, NC 1962, p. 315.

<sup>23</sup> IGCH 2056. Thompson, *Athens*, pp. 504-6; Lewis, NC 1962, pp. 281 f.; Thompson, NC 1962, pp. 312 f.

<sup>24</sup> IGCH 332. G. le Rider, *Monnaies crétoises*, pp. 269-303; Thompson, *Athens*, pp. 511-3; Lewis, NC 1962, p. 282; Thompson, NC 1962, pp. 316 f.

<sup>25</sup> IGCH 344. A. N. Meletopoulos, *Parnassos* 1883, pp. 774-6; U. Köhler, *Z/N* 1885, pp. 103-6; Thompson, *Athens*, pp. 502 f.; Lewis, NC 1962, p. 281; Thompson, NC 1962, p. 315.

*Kayseri (Anatolia) hoard*<sup>26</sup> Athenian tetradrachms brought to Anatolia; no piece later than ΜΝΑΣΕΑΣ - ΝΕΣΤΩΡ (120/19 or 87/6).

To this enumeration of related finds should be added the *Çesme hoard* of 1960, which bears a striking resemblance to the Giresun burial. The Çesme coins have as yet been only summarily published; a detailed account of the hoard's contents is given here through the courtesy of Mary Comstock of the Museum of Fine Arts in Boston.<sup>27</sup>

## PONTUS — MITHRADATES VI

Types as Giresun nos. 1–11.

*Tetradrachm*

1. Boston 65.99 15.98 ↗ To r., ΘΣ (yr. 109 = 89/8) and ✕.

## BITHYNIA — NICOMEDES II

Types as Giresun nos. 23–29.

*Tetradrachm*

2. Boston 65.97 16.12 ↑ To r., ✕ and ΖΞΡ (yr. 167 = 131/0).

## THRACE — LYSIMACHUS

*Obv.*: Diademed head of Alexander III with ram's horn r.

*Rev.*: ΒΑΣΙΛΕΩΣ ΛΥΣΙΜΑΧΟΥ. Seated Athena l., holding Nike who crowns king's name. Other rev. marks as indicated.

<sup>26</sup> IGCH 1416. Thompson, *Athens*, pp. 509–11; Lewis, NC 1962, p. 282; Thompson, NC 1962, p. 314 and n. 3. The Cappadocian material said to be from the same find must belong to a different hoard. When the Athenian tetradrachms were received at ANS they were heavily encrusted and required extensive cleaning; no encrustation was present on the Cappadocian drachms. O. Mørholm has informed me that he also believes the Athenian and Cappadocian lots come from different sources.

<sup>27</sup> IGCH 1359. Thompson, *Athens*, p. 448, n. 1; Lewis, NC 1962, p. 285; Thompson, NC 1962, p. 313. I was able to inspect the hoard in Boston in May 1971. A photographic record is on file at ANS.

*Tetradrachm*

3. Boston 65.98 16.51 ↑ To l.,  $\overline{\text{M}}$ ; in exergue, ornamented trident; below throne, BY (mint of Byzantium).

## CISTOPHORI — PERGAMUM

Types as Giresun nos. 30–32.

*Tetradrachms*

4. Boston 65.65 12.30 ↑ To l.,  $\overline{\text{M}}$  (Pergamum); to r., serpent staff; above center, TH and  $\overline{\text{M}}$ . Pinder 118.  
 5. Boston 65.63 12.18 ↑ As no. 4, except AP and  $\overline{\text{M}}$ . Pinder 122.  
 6. Boston 65.62 12.33 ↑ As no. 4, except ME and  $\overline{\text{M}}$  A. Pinder 121.  
 7. Boston 65.64 12.10 ↑ As no. 4, except MH and N  $\overline{\text{M}}$  O. Pinder —.

## ATTICA — ATHENS

Types as Giresun nos. 38–55.

*Tetradrachms*

8. Boston 65.68 (Th. 287–306) 15.52 ↑ ΓΛΑΥ - ΕΧΕ; on amphora, ?; to l., KT; to r., bust of Helios.  
 (170/69 or 137/6)  
 9. Boston 65.80 (Th. 471e) 16.35 ↑ ΠΟΛΕΜΩΝ - ΑΛΚΕΤΗΣ - ΑΡΙΣ; on amphora, ?; below, ΣΦ; to l., tripod.  
 (157/6 or 124/3)  
 10. Boston 65.78 (Th. 618b) 15.87 ↑ ΣΩΚΡΑΤΗΣ - ΔΙΟΝΥΣΟΔΩ - ΑΡΤΕΜ; on amphora, ?; below, ME; to r., Apollo Delios.  
 (148/7 or 115/4)  
 11. Boston 65.81 (Th. 658n) 16.30 ↑ ΔΙΟΤΙΜΟΣ - ΜΑΓΑΣ - ΚΑΛΛΙΑΔΗΣ; on amphora, Θ/Η; below, ΠΕ; no symbol.  
 (146/5 or 113/2)  
 12. Boston 65.69 (Th. 672a) 16.03 ↑ ΕΥΜΑΡΕΙΔΗΣ - ΑΛΚΙΔΑΜ - ΘΟΙ; on amphora, A; below, ME: to r., Triptolemus.  
 (145/4 or 112/1)

13. Boston 65.74 (Th. 714j) 16.43 ↑ ΖΩΙΛΟΣ - ΕΥΑΝΔΡΟΣ - ΖΩΙΛΟΣ;  
on amphora, Θ; below, ΣΟ; to r., bee.  
(142/1 or 109/8)
14. Boston 65.79 (Th. 1000a) 16.29 ↑ ΑΡΟΠ[ΟΣ] - ΜΝΑΣΑΓΟ - ΑΠΟΛ;  
on amphora, Γ; below, ΔΗ; to r., winged Agon.  
(128/7 or 95/4)
15. Boston 65.71 (Th. 1016-21) 16.04 ↑ ΞΕΝΟΚΛΗΣ - ΑΡΜΟΞΕΝΟΣ;  
on amphora, Γ; below, ΣΟ; to r., coiled serpent.  
(127/6 or 94/3)
16. Boston 65.70 (Th. 1026c) 16.13 ↑ ΞΕΝΟΚΛΗΣ - ΑΡΜΟΞΕΝΟΣ; on  
amphora, Λ/Κ; below, ΣΟ; to r., coiled serpent.  
(127/6 or 94/3)
17. Boston 65.66 (Th. 1047-8) 16.37 ↑ ΝΙΚΟΓΕΝΗΣ - ΚΑΛΛΙΜΑΧΟΣ -  
ΑΝΔΡΕΑΣ; on amphora, Μ; below, ΔΙ; no symbol.  
(126/5 or 93/2)
18. Boston 65.67 (Th. 1057) 16.37 ↑ ΔΗΜΕΑΣ - ΕΡΜΟΚΛΗΣ - ΣΩΣΙ-  
ΚΡΑ; on amphora, ?; below, ?; to r., headdress of Isis.  
(125/4 or 92/1)
19. Boston 65.77 (Th. 1091) 15.29 ↑ ΞΕΝΟΚΛΗΣ - ΑΡΜΟΞΕΝΟΣ; on  
amphora, ?; below, ?; to r., dolphin and trident.  
(124/3 or 91/0)
20. Boston 65.76 (Th. 1098) 16.49 ↑ ΞΕΝΟΚΛΗΣ - ΑΡΜΟΞΕΝΟΣ;  
on amphora, ?; below, ?; to r., dolphin and trident. (124/3 or 91/0)
21. Boston 65.75 (Th. 1099) 16.55 ↑ ΞΕΝΟΚΛΗΣ - ΑΡΜΟΞΕΝΟΣ; on  
amphora, Μ/Λ; below, ΑΡ; to r., dolphin and trident.  
(124/3 or 91/0)
22. Boston 65.72 (Th. 1365b) 15.70 ↑ Ο ΔΕΜΟΣ; to r., Perseus or De-  
mos.
23. Boston 65.73 (Th. 1365b) 15.76 ↑ Ο ΔΕΜΟΣ; to r., Perseus or De-  
mos.

#### IONIAN ISLANDS — CHIOS

*Obv.*: Sphinx seated, l.; to l., bunch of grapes. Border of dots.

*Rev.*: ΧΙΟΣ. Amphora. Border of dots. Other rev. marks as indicated.

*Drachms*

24. Boston 65.82 3.68 ↑ To l., cornucopiae; to r., ΔΕΡΚΥΛΟΣ.
25. Boston 65.83 3.65 ↗ As no. 24.
26. Boston 65.84 3.70 ↑ As no. 24.
27. Boston 65.85 3.60 ↑ As no. 24.
28. Boston 65.87 3.59 → As no. 24.
29. Boston 65.88 3.45 ↑ As no. 24.
30. Boston 65.91 3.82 → As no. 24.
31. Boston 65.92 3.59 ↑ As no. 24.
32. Boston 65.93 3.50 → As no. 24.
33. Boston 65.96 3.96 ↑ As no. 24.
34. Boston 65.86 3.75 ↑ To l., illegible symbol; to r., illegible name.
35. Boston 65.90 2.76 ↑ As no. 34.
36. Boston 65.95 3.49 → As no. 34.
37. Boston 65.94 3.64 ↗ Rev. within vine wreath; to l., illegible symbol; to r., ΖΗΝΟΔΩΡΟΣ.
38. Boston 65.89 3.46 ↑ Sphinx r.; rev. within vine wreath; to l., illegible symbol; to r., illegible name.

The material in the Çesme hoard spans nearly a century. The oldest coin is the Lysimachus tetradrachm (no. 3) which bears an obverse portrait of Alexander the Great rendered in Price's style I; the piece was probably struck toward the middle of the second century B.C.<sup>28</sup> The Nicomedes II tetradrachm (no. 2) is dated 131/0, and one Athenian piece (no. 8) is as early as 137/6 (170/69 on the high chronology). Nevertheless, although a few of the Çesme coins may have been retired from circulation at an early date, the bulk of the hoard has the appearance of a currency deposit. The local Chiote pieces, at least, must have been withdrawn from circulation at one time. A minimum of 10 of the 15 coins bears the name of a single magistrate, ΔΕΡΚΥΛΟΣ; a savings hoard would certainly contain a much wider variety of local issues acquired over a longer period of time.

<sup>28</sup> H. Seyrig, "Monnaies hellénistiques de Byzance et de Calcédoine," *Essays Robinson* (Oxford, 1968), pp. 183–200, esp. pp. 197f.; M. J. Price, *NC* 1968, p. 9; P. Pollak, *ANSMN* 16 (1970) pp. 54f.

The 15 Chiote coins are dated 133–88 by Mavrogordato.<sup>29</sup> The lower limit of that range is consistent with the dated Mithradates tetradrachm of 89/8, Athenian tetradrachms nos. 14–21 (95–90, low chronology) and the two O ΔΕΜΟΣ imitations of ca. 86 B.C. All three groups appear to have circulated for comparable lengths of time. As was the case with the Giresun burial, the Athenian pieces were probably brought to Asia Minor by Mithradates' army. The presence of Pontic forces in Chios is specifically attested to by Appian:<sup>30</sup> in 86, Mithradates' general, Zenobius, took control of the city and had its inhabitants removed, intending to replace them with colonists from Pontus. The Chians were not able to return to their homes until the end of the war when Sulla bestowed freedom on the city.

It is tempting to attribute the Çesme hoard to these troubled years, especially because of the large number of its coins struck in the late 90's and early 80's. However, the inclusion of four cistophori of later date (nos. 4–7) rules out this possibility. All four are in extremely fine or better condition, despite the corrosion which mars almost all the coins in the hoard. The four belong to Pergamum Group III and thus postdate 95–90. Only two of the issues (nos. 4–5) were included in the large Mihaliç burial of 76;<sup>31</sup> nos. 6 and 7 appear only in later hoards and must postdate 76. The 38 Çesme coins were probably buried between 75 and 70 B.C., although it is conceivable that the cistophori are additions to an earlier hoard formed during the siege of Chios in 86.<sup>32</sup>

International movements of troops are inevitably accompanied by the introduction of foreign currency into new areas. The hoards discussed above bear witness to the wide-ranging campaigns and world-wide ambitions of Mithradates the Great of Pontus.

<sup>29</sup> J. Mavrogordato, *A Chronological Arrangement of the Coins of Chios* (London, 1919) pp. 315–24, 344–55.

<sup>30</sup> Appian, *Mith.* 46–7, 61.


<sup>31</sup> See n. 10, above p. 9.

<sup>32</sup> The uniform corrosion on all the coins excludes the possibility of modern contamination of the hoard.










## APPENDIX

## MITHRADATES VI OF PONTUS. Additions to Waddington and Price

*A stater*

1. Stag l.; below, BΣ and  .  
SNG von Aulock 6684 = Hess-Leu, April 1962, 258;  
Seaby, May 1972, A544.

*Α tetradrachms*

2. Pegasus l.; to r., □Σ and  ; below, A.  
Hamburger, May 1929, 290.
3. Pegasus l.; to r., ΘΣ and  ; below, ΙΑ.  
Giresun no. 8.
4. Pegasus l.; to r., ΙΣ and  ; below, E.  
Coin Galleries 1963, 5/6, F69.
5. Pegasus l.; to r., ΑΙΣ and  ; below, ΙΑ.  
Giresun no. 9.
6. Stag l.; to r., Α and  ; below, □.  
Giresun no. 19.
7. Stag l.; to r., Α and  ; below, Ζ.  
Giresun no. 20.
8. Stag l.; to r., ΔΙΣ and  ; below, Α.  
Giresun no. 16.
9. Stag l.; to r., ΘΙΣ and  ; below, Α.  
G. Pollard, *A Catalogue of the Greek Coins in the Collection of Sir Stephen Courtauld at the University College of Rhodesia* (Salisbury, 1970), no. 87.
10. Stag l.; to r., ΘΙΣ and  ; below, Θ.  
Neville 16, July 1933, 416.
11. Stag l.; to l., ΚΣ; to r., Κ.  
Giresun no. 18.

## Corpus of dated Tetradrachms of Mithradates VI

96/5	BΣ							H	Θ	I	IA								
95/4	ΓΣ		B																
94/3	ΔΣ																	IB	
93/2	EΣ	A		Γ			⊃	Z	H										
92/1	⊃Σ	A		Γ		E	⊃	Z	H										
91/0	ZΣ								H										
90/89	HΣ		B					Z	H	Θ	I								
98/8	ΘΣ	A				E												IA	IΓ No month
	A	A	B	Γ	Δ		⊃	Z											No month
88/7	IΣ	A	B		Δ	E		Z		Θ									
	B																		No month
87/6	AIΣ							Z		Θ	I	IA							
	Γ																		No month
86/5	BIΣ	A		Γ	Δ	E		Z			I	IA	IB						No month
	Δ																		
85/4	ΓIΣ	A	B	Γ		E	⊃					IA							
84/3	ΔIΣ	A								Θ									
83/2	EIΣ																		
82/1	⊃IΣ											IA							
81/0	ZIΣ																		
80/79	HIΣ					E												IB	
79/8	ΘIΣ	A								Θ	I		BI						
78/7	KΣ																		No month
77/6	AKΣ	A																	
76/5	BKΣ					E	⊃	Z	H	Θ	I	AI							
75/4	ΓKΣ			Γ	Δ	E				Θ	I	IA	IB	IΓ	No month				
74/3	ΔKΣ		B	Γ								IA							
73/2	EKΣ	A	B		Δ				H		I								
72/1	⊃KΣ	A								Θ									
71/0	ZKΣ										I	AI							
70/69	HKΣ																		No month
69/8	ΘKΣ																		
68/7	ΛΣ																		
67/6	ΑΛΣ																		No month





## REPRESENTATIONS OF TEMPLES ON THE GREEK IMPERIAL COINAGE

(PLATES X-XIV)

THOMAS DREW-BEAR

Of all the types of architecture depicted on the coins of the Greek East under the Roman Empire, by far the most frequently represented is the category of temples and other sacred structures.<sup>1</sup> Despite some doubts,<sup>2</sup> numismatic evidence has been utilized for the architectural study of ancient temples since a major pioneering work, notably in a number of shorter studies.<sup>3</sup> Here we shall examine certain general prin-

<sup>1</sup> J. Liegle, "Architekturbilder auf antiken Münzen," *Die Antike* 1936, p. 220.

<sup>2</sup> For example those of H. von Fritze, *Die Münzen von Pergamon* (Abhandl. der preuss. Akad. der Wiss., phil.-hist. Klasse) (Berlin, 1910), pp. 83 ff. The statement of B. Trell, *The Temple of Artemis at Ephesos* (ANSNM 107) (New York, 1945), pp. 3, 44-45, that "The architectural order is always represented with absolute reliability," remains unconvincing in the light of von Fritze's observations, p. 85, concerning the variation between Doric, Ionic and Corinthian capitals in the depictions of temples on the coins of Pergamum. See also the remarks of B. Pick, "Die tempeltragenden Gottheiten und die Darstellung der Neokorie auf den Münzen," *Jahreshefte. ÖstArchInst* 1904, p. 15.

<sup>3</sup> T. L. Donaldson, *Architectura Numismatica: Ancient Architecture on Greek and Roman Coins and Medals* [London 1859] Reprinted. Chicago, 1966. Among these may be cited Donald F. Brown, *Temples of Rome as Coin Types* (ANSNM 90), New York, 1940, a work to be used with caution; and the following works of B. Trell: "Contributions to Anatolian Temple Architecture," *AJA* 1942, p. 120, published later and more fully as *The Temple of Artemis at Ephesos* (ANSNM 107)—see the review by C. H. V. Sutherland, *CR* 1947, pp. 113-114; "Naophoroi of Greek Imperial Coins," *AJA* 1962, p. 200, a topic which constitutes the subject of Trell's speculative article "A Link Between the Medieval West and the Pre-Greek East," *CIN. Atti* (Rome, 1965) pp. 541-555; "A Further Study in Architectura Numismatica," *AJA* 1963, p. 218 (and more fully in *Essays in Memory of Karl Lehmann*. Edited by Lucy F. Sandler [New York, 1964], pp. 344-358); "Architectura Numismatica Orientalis," *AJA* 1969, p. 246 (and more fully as "Architectura Numismatica Orientalis: A Short Guide to the Numismatic Formulae of Roman Syrian Die-Makers," *NC* 1970, pp. 29-50; "Architectura Numismatica: The Buildings of Baalbek," *AJA* 1972, p. 223; and so on. In a discussion reported in "A Numismatic

ciples relevant to the representations of temples on the Greek Imperial coinage<sup>4</sup> and then discuss in detail some special features of interest, especially the depictions of temples with arched lintels over the central intercolumniation of their facade. It will become clear that caution is necessary in the use of such numismatic evidence, as is restraint in the methods employed in its interpretation.

The temples depicted on coins struck by Greek cities under the Roman Empire were normally meant to be identifiable as illustrations of specific edifices. There are exceptions: for example a coin of Tarsus struck under Commodus (PLATE X, 1, *BMCLycaonia*, pl. 35 no. 1) depicting two identical decastyle temples with the inscription *Ταρσοῦ δις νεωκόρου* was meant to illustrate simply the number of Tarsus' neocorates<sup>5</sup> without any attempt to identify separately the actual buildings for which the city claimed this title. However, the difficulty of rendering recognizable an individual temple depicted on the very small area available was generally surmounted by adoption of a convention which

Solution of Two Problems in Euripides," *AJA* 1967, p. 195 (published under the same title in *NC* 1964, pp. 93–101), Trell promised to remove the "one towering obstacle" said to stand in the way of a correct understanding of Euripides, *Iph. Taur.* 113–114 and *Orestes* 1371–1372; but the difficulties in these two passages had already been convincingly solved (in a work unknown to Trell) by J. Roux, "A propos du décor dans les tragédies d'Euripide," *REG* 1961, pp. 25–60. For the vocabulary in the second passage, see also C. Vatin, *Recherches sur le mariage et la condition de la femme mariée à l'époque hellénistique* (Paris, 1970), pp. 211 ff.

<sup>4</sup> For representations of temples on coins of Rome see above all G. Fuchs, *Architekturdarstellungen auf römischen Münzen der Republik und der frühen Kaiserzeit* (Berlin, 1969); on pp. 38–39 Fuchs discusses coins depicting the temple of Rome and Augustus at Pergamum (Pl. 6 nos. 77–78). For the numismatic evidence from a different region see A. Muehsam, *Coin and Temple: A Study of the Architectural Representations on Ancient Jewish Coins* (Leiden, 1966). A recent article by T. Hackens, "Architectura numismatica: à propos de quelques publications récentes," *AC* 41 (1972) pp. 245–254 summarizes current bibliography.

<sup>5</sup> See a coin of Nicomedia struck under Septimius Severus (Waddington, *Recueil général des monnaies grecques d'Asie Mineure* Vol. 1 Pt. 3 [Paris, 1910], p. 540 no. 187 and Pl. 93 no. 11) with the inscription *Νικομηδέων δις νεωκόρων* surrounding a ship and two identical temples, which once again illustrate simply the number of the city's neocorates. However, on a coin of Commodus with the same type and legend (*Recueil général* p. 537 no. 165 and Pl. 92 no. 36) two neocorate temples of Nicomedia are distinguished by differences in their architecture: although both are octastyle, one is lower than the other and has wider central intercolumniation.

consisted of the representation in each central intercolumniation of the cult statue of the divinity to whom the temple was dedicated.<sup>6</sup> Thus a coin of Ephesus struck under Elagabalus (PLATE X, 2, *SNGCop.*: *Ionia* 442) with the inscription *Ἐφεσίων μόνων ἀπάσων τετρακι νεωκέρων* depicts the four temples which formed the basis for this claim; although these buildings are identical in appearance, each is distinguished by the representation in its facade of the cult statue which was worshipped within.<sup>7</sup> Thus the technical difficulties arising from the necessarily small scale of such illustrations did not prevent die-engravers from securely identifying, when they wished, the edifices represented on coins as depictions of specific buildings familiar to their contemporaries. It is therefore legitimate to inquire how far such coins can help to reconstruct the appearance of the temples which they depict.

It is certain that die-engravers normally took certain liberties with the actual appearance of the temples which they illustrated. T. L. Donaldson<sup>8</sup> stated: "I know no occasion, where the facade of the temple is given, in which a temple of a hexastyle portico is represented with a front of eight or four columns, or *vice versa* an octastyle or tetrastyle by six." This view is demonstrably erroneous: to cite only two examples from many, the temple of Apollo at Alexandria in the Troad is depicted with a facade of four, two and even three columns under Commodus (PLATE X, 3, Vienna) and Severus Alexander (PLATE X, 4-5, Vienna, and *SNGFitzwilliam* 4270)<sup>9</sup> and the temple of Artemis at Hypaepa

<sup>6</sup> Compare Percy Gardner, *The Types of Greek Coins: An Archaeological Essay* [Cambridge, 1883] Reprinted (Chicago, 1965), p. 177: "It is a rule, I think without exceptions, that when a figure thus appears in a building on coins, it is a copy of the cultus-statue which was the central point of the building." Trell however claims in "The Cult-Image on Temple-Type Coins," *NC* 1964, pp. 241-246, that "a quite different motivating force lay behind the convention, a force that was the result of a long-standing ritualistic symbolism" identified as "the mystique of an epiphany."

<sup>7</sup> Compare the same temples on *BMCIonia* 305, likewise struck under Elagabalus, with the legend *Ἐφεσίων πρώτων Ἀσίας δ' νεωκέρων* and *BMCIonia* 306, minted in the same reign, which proclaims *δόγματι Συνκλήτου Ἐφεσίων οὔτοι ναοί*.

<sup>8</sup> Donaldson, *Architectura Numismatica*, p. xxiii.

<sup>9</sup> For the facade with three columns, see *BMCTroas* pl. 5 no. 5 and *SNGvonAulock: Troas* 1470, from the same die (Commodus); *SNGCopenhagen: Troas* 134, 135 (Caracalla); *BMCTroas* Pl. 5 no. 18 (Alexander Severus). Another coin depicting the facade with two columns is illustrated in *BMCTroas* Pl. 6 no. 1, from the same die as Pl. X, 4 here.

in Lydia is shown with four columns under Antoninus Pius (PLATE X, 1, *SNGvonAulock: Lydien* 2963) and six under Trajan Decius (PLATE X, 2, *SNGvonAulock: Lydien* 2970).<sup>10</sup> Contrary to what has sometimes been believed, it was not technical difficulties which compelled die-engravers to depict on their coins temple facades with fewer columns than actually existed. Even the very largest temple could be represented accurately on the smallest flan. A coin of Tarsus struck under Marcus Aurelius (PLATE XI, 3, *BMCLycaonia*, pl. 34 no. 11) correctly shows the decastyle facade of the "Tomb of Sardanapalus."<sup>11</sup> When the number of columns possessed by a temple is reduced in its numismatic representation, the reason is not technical limitation but iconographic convenience: some other aspect of the temple seemed to the die-engraver more important and deserving of emphasis. It follows that although coins may illustrate a reduced number of columns, there is no reason why they should exaggerate or show more columns than in fact existed.<sup>12</sup> Exceptions to this conclusion at Cyzicus<sup>13</sup> and Nicomedia<sup>14</sup> are only apparent.

<sup>10</sup> For other representations of this temple with a facade of four columns on coins of Julia Domna, Plautilla and Trajan Decius and with a facade of six columns on coins of Marcus Aurelius, see below, notes 28 and 27 respectively.

<sup>11</sup> See W. B. Dinsmoor, *The Architecture of Ancient Greece* 3rd ed. (London, 1950), p. 283 and bibliography, p. 378.

<sup>12</sup> See the discussion by S. Handler, "Architecture on the Roman Coins of Alexandria," *AJA* 1971, p. 58 and also H. Seyrig, "Antiquités syriennes," *Syria* 1959, p. 62 (= *Antiquités syriennes* Ser. 6 [Paris, 1966], p. 36).

<sup>13</sup> The great temple which Cyzicus owed to Hadrian has been restored according to the description of it given by Cyriacus of Ancona as hexastyle, although the neocorate temple of Cyzicus is depicted on coins as octastyle: e.g. *SNGvonAulock: Mysien* 1260 (Antoninus Pius); *SNGvonAulock: Mysien* 1274, *SNGCop: Mysia* 122, and *BMCMyasia* pl. 13, no. 10 (Commodus). F. W. Hasluck, *Cyzicus* (Cambridge, 1910), pp. 11-12, doubted the accuracy of Cyriacus' report and restored the temple with a facade of eight columns on the analogy of the octastyle temple at Aezani in Phrygia (thus also Dinsmoor, *Architecture of Ancient Greece*, p. 283). For a discussion of the number and arrangement of the columns possessed by this temple see B. Ashmole, "Cyriac of Ancona and the Temple of Hadrian at Cyzicus," *Journal of the Warburg and Courtauld Institutes* 19 (1956), pp. 179-191. On p. 182 Ashmole restores the temple facade as octastyle and explains how this is consistent with Cyriacus' description.

<sup>14</sup> C. Bosch, *Die kleinasiatischen Münzen der römischen Kaiserzeit* II, 1 (Stuttgart, 1935), pp. 214 ff. states that on the coins of Nicomedia the same illustration represented different temples under different emperors. An identical facade of an

The manner in which coins depict the columns of temple facades is of special significance because the great majority of numismatic representations of temples show the buildings in a strictly frontal view. The reason for this will become apparent from a comparison of four coins struck in the reigns of Nero (PLATE XI, 4, Vienna), Antoninus Pius (PLATE XI, 5–6, Vienna and *SNGFitzwilliam* 4441) and Trajan Decius (PLATE XI, 7, Vienna), which depict the octastyle temple of Artemis at Ephesus. The first of these shows the temple in a three-quarter view with a facade of four columns; this method of depicting a temple suffered from the disadvantage of being more difficult to execute successfully than a simple frontal representation; it also afforded a central intercolumniation of generally insufficient width<sup>15</sup> for the depiction of the cult statue which, as we have seen, often constituted the sole element permitting identification of the edifice illustrated. For these reasons the three-quarter view was supplanted after the reign of Nero in the coinage of Ephesus by the strictly frontal view. Both coins issued under Antoninus Pius (PLATE XI, 5, 6) utilize the greater width thus gained for the facade to illustrate not only the cult statue but also the correct number of columns and even the sculptured drums at their bases; however, on one coin the cult statue has been all but superimposed on the central columns, whereas on the other the central intercolumniation is multiplied in width compared to the lateral intercolumniations in order to create an open space large enough adequately to display the statue. This device had some foundation in reality, since the central intercolumniation

octastyle temple, according to Bosch, was meant to depict first the temple of Commodus, next the temple of Augustus, then that of Septimius Severus, and finally the temple of Elagabalus—although Bosch states that the temple of Elagabalus was in fact hexastyle. This theory is not made convincing.

<sup>15</sup> Compare on pl. 15 of Gardner's *Types of Greek Coins* the representations of the cult images on a coin of Delphi (no. 26, within a temple shown in three-quarter view) and a coin of Corinth (no. 24, within a distyle edifice shown frontally). An exceptional type is that of an alliance coin of Magnesia and Ephesus (PLATE XII, 1 Berlin) which portrays, on a large flan, the goddess representing each city in the form of two adjacent cult statues, each standing in the facade of a distyle temple shown in three-quarter view (cf. *BMC Ionia*, p. 174, no. 106). The two temples, identical in appearance, are subordinate in importance to the cult images, which constitute the central element in this variation of a common *ὁμόνοια* symbolism in which each participating city is represented by the cult statue of its principal deity.

nations of the temple of Artemis at Ephesus, following a rather common practice,<sup>16</sup> were in fact slightly larger than the lateral intercolumniations. The artistic advantages which motivated the adoption of this device are obvious and it is evident why this convention too became a standard feature of the depictions of temples on Greek Imperial coinage. A further step in the direction of increased stylization is exemplified by the coin of Trajan Decius (PLATE XI, 7), whose temple is stripped of the elaborate pedimental decoration which had been illustrated under Antoninus Pius and is reduced to four columns enclosing the cult image. This simplified and standardized tetrastyle occurs on great numbers of coins issued throughout the Greek East; used conventionally to depict any sort of temple, it is by far the most common type among all the numismatic representations of architecture.

A striking feature of schematic frontal depiction is the variation which takes place in the design of the temple lintels. Most are straight (as on the coins illustrated on PLATES X, XI) but a smaller, though not inconsiderable, number are straight only in their lateral portions and display an arch over the central intercolumniation.<sup>17</sup> Do such numismatic depictions of arched lintels represent faithfully the actual appearance of the temples shown at the time the coins in question were minted, or are they simply an artistic convention? This question was selected by Trell, in conjunction with a similar question regarding the accuracy of numismatic depictions of temples with spirally-fluted columns, as a typical test case to demonstrate her methods of numismatic interpretation.<sup>18</sup> We shall first examine the matter of the spirally-fluted columns and then discuss in some detail the question of the arched lintels; in

<sup>16</sup> See Dinsmoor, *Architecture of Ancient Greece*, pp. 276-277: Dinsmoor cites temples at Alabanda, Ankara, Aezani and Aphrodisias. B. Ashmole, *Journal of the Warburg and Courtauld Institutes* 19 (1956), p. 190, discusses the widened central intercolumniation of the great temple at Cyzicus, which is correctly represented on the coins as wider than the lateral intercolumniations. However, the temple of Hera at Samos, also represented on coins, according to Trell, with a wide central intercolumniation, actually displayed in its facade a central intercolumniation narrower than those at either side (see below, note 48).

<sup>17</sup> The two types are combined by coins of Dardis in Lydia under Septimius Severus and Philip (*SNG von Aulock: Lydien* 2934, 2936) which depict a temple of Apollo with a straight lintel and an arch in the pediment.

<sup>18</sup> Trell, *Ephesos*, Appendix D: "Details 'Outside the Norm,'" pp. 46-50.

both cases there exists important evidence not utilized by Trell, which will permit us to arrive at conclusions substantially different from hers.

With regard to the first topic Trell states: "Eastern coins usually represent column shafts as straight and smooth, though a few do show flutings. The spiral column found only on the Samian coins<sup>19</sup> is therefore a detail which may be characterized as 'outside the norm,'—that is, a detail which departs from the usual stylized form. Since no actual spiral column from Samos has been preserved, no statement as to the reliability in this respect of the coins can be made. The fact, however, that this series is the sole instance of the appearance of spiral columns among the great number of coins considered, is presumptive proof that the choice of this form was no mere engraver's whim or numismatic convention, and that it must therefore have had some special significance as a representation of an actual detail." In fact, coins depicting temples with spirally-fluted columns are not uncommon. In a work unknown to Trell, which was published in 1907,<sup>20</sup> Chapot listed the following cities in addition to Samos which issued coins depicting spirally-fluted columns: Miletus,<sup>21</sup> Hypaepa, Philadelphia, Saïtta, Antioch on the Maeander, Eumeneia,<sup>22</sup> Kadi, Gangra, Isaura,<sup>23</sup> Aspendus, Laodiceia in Syria, and

<sup>19</sup> Trell illustrates two coins of Samos said by her to display the temple of Hera with spirally fluted columns, one of which was struck under Domitian (PLATE XII, 5). The columns are in fact not fluted at all, for the slanting marks which appear only on the bottom of the two right-hand columns are scratches on the metal which continue across the lower portion of the cult statue and the temple stylobate. The other coin, at Vienna, was struck under Gallienus.

<sup>20</sup> V. Chapot, *La colonne torse et le décor en hélice dans l'art antique* (Paris, 1907), pp. 114 ff.

<sup>21</sup> On the reverse of a coin of Miletus under Balbinus (*SNGCop.*: *Ionia* 1021; see Chapot, *La colonne torse*, p. 119 fig. 142) is displayed a "tetrastyle temple, within which statue of Apollo Didymeus." This temple has an arched lintel, but there is no evidence that the Didymeion ever possessed such a feature: see H. Knaeffuss, *Didyma* Pl. 1 Vol. 3 *Zeichnungen* (Berlin 1941), p. 1 Z 511 (a reconstruction of the eastern facade of the temple with its doorway) and p. 67 Z 597 (a restored frontal view of the Naiskos), both of which show a straight lintel.

<sup>22</sup> On a coin struck for this city (*BMCPPhrygia*, p. 221, no. 64 and pl. 27, no. 13) a temple of Ephesian Artemis is depicted with a "front of six columns, lower drums plain, upper portions spiral."

<sup>23</sup> In addition to the coin showing a "temple with four twisted Ionic columns" which is cited by Chapot (see note 20 above) (*BMCLycaonia*, p. 13, nos. 1 and 2 and



Tripolis in Phoenicia. An illustration of a coin from each of these cities may be found in Chapot's work; to his list may be added the following (using only the standard catalogues; one example is cited from each mint): Apollonia Salbake (tetrastyle temple with three statues identified as Apollo, Artemis and Aphrodite in *SNGvonAulock: Nachträge* III 8072; L. and J. Robert, *La Carie* II, p. 364, type AD); Tabae (hexastyle temple of Artemis in *SNGCop.: Caria* 571; *La Carie* II, p. 143, type AZ); Amorion (*SNGvonAulock: Phrygien* 3412); Termessus (*SNGvonAulock: Pisidien* 5357; this is not a temple, and the same scene is repeated, without an arch, *SNGvonAulock: Pisidien* 5358); Myra (*SNGvonAulock: Lykien* 4370); Anemurion (*SNGvonAulock: Kilikien* 5520); Byblus (*BMCPhoenicia*, p. 104, no. 48 and pl. 12, no. 17); and Nisibis (*BMCarabia*, p. 122, no. 21 and pl. 17, no. 10). These lists are meant to be illustrative and not exhaustive; other cities as well issued coins depicting spirally-fluted columns, and it is clear that this feature attained a far wider distribution than just the island of Samos.

Trell asserted that there exists presumptive proof that this feature of the Samian coins in question represents a real architectural detail. However, in the final publication of the results from the excavation of the temple of Hera,<sup>24</sup> it is nowhere suggested that the columns of this edifice were spirally fluted; indeed, they were not fluted at all. The only fluting attested beyond question for the temple of Hera in the period

pl. 2, no. 10) see also *SNGvonAulock: Nachträge* IV: *Phrygien* 8653. On this coin the exterior (Ionic) columns have vertical flutes whereas the right inner column is fluted spirally; the left inner column is apparently worn.

<sup>24</sup> O. Reuther, *Der Heratempel von Samos: Der Bau seit der Zeit des Polykrates*, Berlin, 1957. Reuther did not know of Trell's discussion of the numismatic representations of this temple, for his evaluation of the numismatic evidence (p. 27) cites only the theory of H. Schleif (see below note 42) that the coins represent not the great temple itself but a smaller edifice erected nearby to house the cult statue in Roman times, after the project of completing the great temple had been abandoned. None of Schleif's four suggested reconstructions of the small Roman temple show it with spirally-fluted columns; no evidence for such columns was found in the excavations of the area occupied by this temple, which was of the Doric order. See also reviews of *Heratempel* by A. von Gerkan, *Göttingische Gelehrte Anzeigen* 213 (1959), p. 58 and W. H. Gross, *Deutsche Literaturzeitung* 80 (1959), col. 46.

that concerns us is the horizontal fluting of the column bases.<sup>25</sup> One must therefore conclude that Trell's claim concerning the fidelity of the architectural representations on Samian coins is in this respect exaggerated.

The next question, concerning the accuracy of numismatic depictions of temples with arched lintels, is answered by Trell as follows: "Of the thirty-eight temples considered, only nine are shown on the coins with arcuated entablature. Because so little of the entablature of temples has been preserved, it is impossible in this respect as well to establish the reliability of the coins, but in none of these nine cases is there any evidence that the temples did not actually have such a lintel at the time indicated by the coins. Indeed, there is at least circumstantial evidence for the existence of the arcuated lintel in the fact that in several cases the building had just been completed at the time the coins were issued, or that it had been rebuilt<sup>26</sup> just before it appears on the coins with the arcuated lintel". This attempt to uphold the accuracy of numismatic evidence for the type of the lintel, like the similar attempt of Donaldson concerning the number of columns represented on coins, is mistaken. Not only is it impossible, as Trell herself admits, to prove the accuracy of the numismatic depictions; on the contrary, it is possible to prove their unreliability.

To cite only two examples from many, if the theory under discussion is correct we must believe that the temple of Zeus at Dioshieron in Lydia (always depicted with a facade of four columns, and identified beyond question by the presence of the cult statue) was originally constructed with a straight lintel, for it is thus represented under Marcus Aurelius (*SNGFitzwilliam* 4856) and Commodus (PLATE XII, 2, Paris); it was then

<sup>25</sup> See for example Reuther, *Heratempel*, Zeichnung 23. On the theory that the edifice represented by the coins is in fact the great temple (or its Roman successor) the spirally-fluted columns could represent, under the numismatic code of transposition or transference (see below, note 97) the actual horizontal flutes at their bases. Dinsmoor's suggestion in his review of *Heratempel* in *AmJPhilol* 68 (1947), p. 441 that the spirally-fluted columns were transferred by the die-engraver to the facade plane from a shrine enclosing the cult statue within the cella lacks supporting evidence. See note 49 below.

<sup>26</sup> The theory that these temples were rebuilt is necessary under Trell's assumption of the accuracy in this respect of numismatic depictions, because numerous temples are represented on successive coins with their lintels both straight and arched.

destroyed and rebuilt with an arched lintel (PLATE XII, 3 Paris) before the end of the reign of Septimius Severus (cf. *BMCLydia*, p. 76, no. 15); and finally it was once again reconstructed with a straight lintel before it was illustrated on a coin of Severus Alexander (PLATE XII, 4, Paris). Likewise the temple of Artemis at Hypaepa, again securely identified by its unchanging cult image, will have possessed a straight lintel<sup>27</sup> in the reign of Antoninus Pius (PLATE XI, 1), an arched lintel<sup>28</sup> under Septimius Severus (PLATE XI, 5, *SNGvonAulock: Lydien* 2966), and again a straight lintel in the time of Trajan Decius (PLATE XI, 2). Further examples are not necessary to enable us to conclude that these variations in the form of the lintel must be explained otherwise than by postulated architectural changes in the monuments themselves.<sup>29</sup>

Like the reduction in the number of columns represented, the replacement of the straight by the arched lintel was often dictated by artistic convenience, and for the same reason: just as the smaller number of columns left free a wider space for the central intercolumniation in which could be depicted the cult image, an arched lintel afforded a higher space for the same purpose. The advantages to be derived from this increased vertical space are apparent on the coins of Samos, which issued a more extensive series of coins depicting a temple with arched lintel than any

<sup>27</sup> Other representations of this temple with a straight lintel occur on coins of Marcus Aurelius (*SNGCopenhagen: Lydia* 194, *SNGvonAulock: Lydien* 2964, and *NC* 1971, pl. 26, no. 20. Compare *BMCLydia*, pl. 12, no. 12, another coin of Trajan Decius from the same reverse die as that illustrated herein as PLATE XI, 2.

<sup>28</sup> Other representations of this temple with an arched lintel occur on coins of Julia Domna (*Fitzwilliam, McClean Bequest* III, pl. 303, no. 8), Plautilla (*McClean*, pl. 303, no. 10, *SNGCop.: Lydia* 199), and Trajan Decius (*SNGvonAulock: Lydien* 2971).

<sup>29</sup> This conclusion contrasts sharply with a "discovery" to which Trell attributed the "highest significance" (*Ephesos*, pp. 4–5): "the ancient engraver never 'invented' details. He might omit or abbreviate, as we have noted, but he never added." The view that a straight lintel could stand as "numismatic abbreviation" (for this concept see *Ephesos*, pp. 3–4) for an arched lintel cannot save this interpretation of the evidence, for in such a case the "abbreviation" would be of the same size as the feature abbreviated, and the word loses its meaning. Skepticism as to the accuracy of these numismatic representations was expressed by Dinsmoor in his review: *AmJPhilol* 68 (1947), p. 441.

other city.<sup>30</sup> All these coins illustrate an edifice identified by the unchanging statue of Hera; but under Domitian (PLATE XII, 6, NC 1882, pl. 12, no. 7) and apparently again under Septimius Severus<sup>31</sup> this temple is shown with a straight lintel, whereas on another coin struck in the latter reign (PLATE XIII, 1, *SNG von Aulock: Ionien* 2307) and on subsequent issues the lintel is arched. The theory that the numismatic depiction of temple lintels always corresponds to architectural reality renders it necessary to postulate "a remodeling of the building between the first and third centuries"<sup>32</sup> for which there exists no evidence. In fact, there is no evidence that the Heraion of Samos ever possessed an entablature at all.<sup>33</sup> If we look at the coins from an artistic viewpoint, the reason for the change in the form of the lintel is clear: on the earlier coins the cult statue is short and depicted with few details, since it is confined to the same height as that of the columns on either side; on the later issues with an arched lintel (for instance a coin of Valerian, PLATE XIII, 2, *SNG Cop.: Ionia* 1796) the statue gains in height, details are clearer, and above all the cult image assumes greater importance in relation to its architectural frame.<sup>34</sup> Surely these artistic advantages were judged

<sup>30</sup> The temple of Hera is shown with an arched lintel on coins of Samos for Julia Domna, Caracalla, Geta, Severus Alexander, Maximinus, Gordian III, Philip I, Otacilia Severa, Philip II, Trajan Decius, Etruscilla, Valerian, Gallienus, Saloninus and Salonina.

<sup>31</sup> *BMCIonia*, p. 377, no. 261: this coin is not illustrated. In the descriptions of later issues the fact that the temple has an arched lintel is noted in the catalogue.

<sup>32</sup> Trell, *Ephesos*, p. 35. This "remodeling" may rather have taken place under Septimius Severus (see notes 30 and 31 above).

<sup>33</sup> O. Reuther, *Heraempel*, p. 61. However, Trell continues to assert that the Heraion did possess a pediment—on the basis of "the evidence of the coins of Ephesus" (*Essays in Memory of Karl Lehmann*, p. 345 note 6).

<sup>34</sup> Similarly, on the coins of Hypaepa discussed (p. 36 above) the cult image is depicted more effectively by the issue struck under Severus Alexander than by those struck under Antoninus Pius and Trajan Decius. It is significant for the artistic function of the arched lintel that it never appears on coins in conjunction with decastyle or octastyle facades, which leave insufficient space for depiction of the cult statue. For the same reason, temples with arched lintels are also not shown in three-quarter view. L. Kadman, "Numismatic Evidence of the Architectonic Revolution in the Second Century C. E.," *Israel Numismatic Bulletin* Nos. 3–4 (Aug.-Dec. 1962), pp. 75–76, illustrates three depictions of temples on coins of Zeugma in Commagene: one, struck under Antoninus Pius, shows a normal straight lintel; another, from the

with favor by contemporary citizens of Samos, for once the straight lintel was supplanted on the coinage of that city it never reappeared.

Three mutually exclusive hypotheses have been advanced concerning the edifice depicted by these coins of Samos. On the basis of the arched lintel and spirally fluted columns Donaldson concluded that the coins "represent the baldachin or canopy over the statue of the goddess, inside the temple, and not the temple itself."<sup>35</sup> This view was attacked by Chapot on the grounds that the edifice is shown on the coins above a prominent flight of steps<sup>36</sup> and that the spirally fluted columns could well be an accurate representation of a temple facade contemporary with the relatively late coins on which these columns are depicted;<sup>37</sup> Chapot also suggested that the temple shown on these coins may be not the great archaic building but another temple of Hera at Samos.<sup>38</sup> Subsequently, in a report on the excavation of the Heraion, Schede advanced the view that the cella of the great temple was never covered by a roof and comparing numismatic representations revived the theory of Do-

reign of Elagabalus, adds an arch in the pediment over this lintel; the third, minted under Philip, replaces the straight lintel altogether with an arch. Starting from the premise that these coins must furnish faithful depictions, Kadman concludes that "coins of some cities show that temples which were originally built in the classical style were later changed and 'modernized' with the object of adapting them to the new type." In fact, other coins struck during the short reign of Philip display the second class of lintel attributed by Kadman only to the reign of Elagabalus (*BMCGalatia*, pl. 16, no. 14). Comparison of this issue with *BMCGalatia*, pl. 16, no. 13, struck in the same reign, demonstrates that the change in the lintel form is once more attributable to artistic advantages thus obtained rather than to a desire for meticulous realism of architectural detail. The former coin, on which a straight lintel is combined with an arch under the pediment, omits any depiction of the cult image, which is shown on the latter in the increased space made available by the arch over the central intercolumniation.

<sup>35</sup> Donaldson, *Architectura Numismatica*, p. 87.

<sup>36</sup> Chapot, *La colonne torse*, p. 120. An aedícula of the Roman period sheltering the image of the goddess could have been raised above the level of the cella by a flight of steps, as in the temples at Baalbek and elsewhere (see below, notes 97-99); but no evidence of such a construction was found in the Heraion excavations.

<sup>37</sup> Chapot, *La colonne torse*, cited for this temple only coins of Etruscilla and Gallienus.

<sup>38</sup> Chapot, *La colonne torse*, p. 120 note 1: "La déesse a pu avoir deux sanctuaires à Milét" (Milet is a *lapsus calami* for Samos).

naldson, without knowledge of the latter's work or of the objections raised by Chapot.<sup>39</sup> Later Schede's view was rejected by archaeologists who preferred to assume the existence of a roof over the cella,<sup>40</sup> and Buschor suggested that the coins depict a nearly square peripteral temple of the Roman period, erected to the east of the great temple in order to house the statue after the latter edifice had fallen into decay—thus substantially reviving the theory of Chapot, again without knowledge of the latter's work.<sup>41</sup> This theory was subsequently repeated with greater assurance by Buschor and Schleif,<sup>42</sup> and it served as the basis for one of the four conjectural restorations of the facade and roof of the Roman peripteral temple suggested by Schleif.<sup>43</sup>

Trell challenged this interpretation and held that the edifice represented on the coins is the archaic temple on the ground that the building sheltering the cult statue displays on some of the coins Ionic capitals whereas the capitals of the Roman peripteral temple were Doric.<sup>44</sup> She also argued that "Schleif, utilizing the passage in Strabo (XIV 637)

<sup>39</sup> M. Schede, "Zweiter vorläufiger Bericht über die von den Berliner Staatlichen Museen unternommenen Ausgrabungen auf Samos," *Abhandlungen. Akad Wiss Berlin* No. 3 (1929), pp. 7–8, 11.

<sup>40</sup> Unfortunately the excavations of the Heraion did not permit definite conclusions as to the presence or absence of foundations in the cella which would have been necessary to support the columns sustaining a roof. See for the reason and for arguments in opposing senses, von Gerkan's review of Reuther, *Heraempel* (note 24 above), pp. 55, 56; Reuther, *Heraempel*, p. 28 and F. E. Winter's review of it in *AJA* 1960, pp. 90–91.

<sup>41</sup> E. Buschor, "Heraion von Samos: frühe Bauten," *MDAI(Athen)* 1930, p. 98: "Die Münzen Gordians III, die das Kultbild in einem offenen Tempel mit vier Frontsäulen und breitem, überhöhtem Mittelinterkolumnium zu zeigen scheinen, gehen vielleicht auf eine Kenntnis des peripteralen Kultbildtempels zurück."

<sup>42</sup> H. Schleif and E. Buschor, "Heraion von Samos: Der Altarplatz der Frühzeit," *MDAI(Athen)* 1933, p. 170. See also H. Schleif, "Heraion von Samos: Das Vorge-lände des Tempels," *MDAI(Athen)* 1933, p. 218. This view was followed by Reuther in *Heraempel*, p. 27.

<sup>43</sup> H. Schleif, *MDAI(Athen)* 1933, pp. 223–224.

<sup>44</sup> For the capitals of the Roman temple see Schleif, *MDAI(Athen)* 1933, p. 222 and Abb. 6. The capitals of the archaic Heraion, meant to be Ionic, were never completed according to Reuther, *Heraempel*, p. 63. In his review of *Heraempel* (see note 24 above), von Gerkan suggests (p. 62) that there may have existed finished Ionic capitals in the cella and the pronaos.

which describes the great temple as a *πινακοθήκη*, asserted that the temple had been abandoned as a shrine . . . and that the statue of Hera had been removed from the great temple to the smaller structure. For this removal there is no evidence whatever, as the coins throughout the Roman period show the cult-image in its place in the great temple." But this is circular reasoning, since what the coins were meant to show is precisely the point at issue.<sup>45</sup> The position of the sacred lygos bush, which is depicted on some of the coins adjacent to the building housing the cult statue, cannot help in identifying what building is depicted, for on different issues the bush appears both to the left and to the right of the temple.<sup>46</sup>

In his review of Trell's monograph, Dinsmoor (see above note 25) was unconvinced by the suggestion that the archaic Heraion possessed an arched lintel and spirally fluted columns, and proposed instead to recognize in these features details of a niche or shrine framing the cult statue within the cella: the theory of Donaldson and of Schede, proposed independently for the third time. As we have seen, the author of the final report on the excavation of the great temple knew neither the theory of Trell nor the objections of Dinsmoor, but considered as probable the third explanation, that the coins represent the small temple of the Roman period. Ohly considered that this small temple was erected in early imperial times to house the cult statue after the great Heraion had fallen into disrepair, and that this is the building depicted on the coins.<sup>47</sup>

Clearly the theory that the coins depict the facade of the archaic Heraion stands in contradiction not only to the explicit statement of

<sup>45</sup> Trell's discussion in *Ephesos*, p. 35 fails to explain Strabo's mention (XIV 637) of τὸ Ἡραῖον, ἀρχαῖον ἱερὸν καὶ νεὺς μέγας, ὃς νῦν πινακοθήκη ἐστὶ. Trell objected to Schleif's conjectural reconstruction D (see note 43 above) that an earlier issue shows the statue in a building with a straight lintel (Pl. XII, 6); Schleif himself emphasized the architectural difficulties entailed by the assumption of an arched lintel over the central intercolumniation.

<sup>46</sup> For the actual position of the lygos bush, as determined by excavation, with relation to both the Roman temple and the archaic Heraion, see the plan facing p. 40 of D. Ohly, "Die Göttin und ihre Basis," *MDAI(Athen)* 1953, publ. 1956. The position of this bush was utilized to support various differing theories by Schede (see above note 39) on the one hand, and by Schleif, *MDAI(Athen)* 1933, p. 227 and Reuther, *Heraion*, pp. 27-28, 65 on the other.

<sup>47</sup> Ohly, *MDAI(Athen)* 1953, publ. 1956, pp. 28, 38.

Strabo but also to the testimony furnished by the excavation. The capitals of the great temple were apparently never completed; it possessed neither an arched lintel nor spirally fluted columns; and the central intercolumniation of its facade, in contradiction to what is shown on the coins, was according to the final publication not wider but appreciably narrower than the intercolumniation on either side.<sup>48</sup> The theory advanced by Donaldson, Schede and Dinsmoor, that the coins depict a shrine within the cella of the great temple, has no archaeological evidence of any kind in its support<sup>49</sup> and thus remains a pure hypothesis, invalidated like the preceding by the statement of Strabo. There remains the explanation that the coins struck under the Roman Empire depict the Roman temple—which indeed has no other obvious reason for its existence, located as it is between the facade of the Heraion and the great altar contemporary with the archaic temple, than to shelter the sacred cult statue.<sup>50</sup>

<sup>48</sup> Reuther, *Heratempel*, p. 56. H. Büsing proposed a different reconstruction with intercolumniations decreasing progressively in width from the center to the sides: "Zur Ostfront des polykratischen Hera-Tempel auf Samos," *Marburger Winkelmann-programm* 1968, publ. 1969, pp. 22–28.

<sup>49</sup> No foundations for such a shrine—or indeed of any pedestal suitable for supporting a cult statue—were found in the excavations of the cella: see Reuther, *Heratempel* p. 28 and Ohly, *MDAI(Athen)* 1953, publ. 1956, p. 33.

<sup>50</sup> For the position of the Roman temple see the plan referred to in note 46 above. Ohly suggested (p. 34) that a heavy foundation discovered in the middle of the pronaos of the archaic Heraion ("Basis 5" on his plan; compare Reuther, *Heratempel*, p. 30) might have supported a baldachin within which the cult statue was placed on festive occasions in the Roman period, and von Gerkan's review of *Heratempel*, p. 57, elaborated this hypothesis as follows: "man verlegte, in einer leider undatierten Spätzeit, die Hauptkultstatue hierher, als in der Cella das von Strabon 14, 1, 14 genannte Archiv für Pinakes eingerichtet wurde." The latter theory encounters the difficulty that it becomes necessary to account in some other way for the existence of the Roman temple in its peculiar location. Its elaboration is also based upon a doubtful interpretation of the phrase of Strabo (see note 45 above) who states that the *πινακοθήκη* was installed not in the cella but in the *νεὸς μέγας*. If part of the great temple has continued to shelter the sacred statue and serve as a place of cult, it is difficult to believe that Strabo would have referred to it as a *νεὸς δὲ νῦν πινακοθήκη ἐστί*. The theory of von Gerkan would permit a fourth hypothesis, claiming complete accuracy in the numismatic depictions of the edifice sheltering the statue: the baldachin in question could well be imagined as



This enables us to draw certain conclusions regarding the accuracy of the numismatic depictions. The coins uniformly show an edifice with four columns, and the Roman temple did in fact possess a tetrastyle facade; the edifice on the coins also has a wide central intercolumniation, and in fact the central intercolumniation of the Roman temple measures 8 m. compared to the lateral intercolumniations of 3.80 m.<sup>51</sup> We have seen, however, that both the number of columns and the size of the central intercolumniation in numismatic depictions are frequently determined by purely artistic reasons, so that without the archaeological evidence it is not possible to deduce with certainty the existence of these features of the building in question purely on the basis of numismatic depictions. On the other hand, the coins show an edifice with Ionic capitals and spirally fluted columns, which as we have seen did not exist on the Roman building; and they show a high stepped podium whereas one of the striking features of the Roman temple is the complete absence of any podium or raised substructure.<sup>52</sup> Quite aside from the matter of the lintel, which the coins show first as straight and later as arched and for which Schleif could not present any archaeological evidence, it is apparent that the dissimilarities between numismatic representation and architectural reality, in this rare instance in which

possessing a tetrastyle facade, spirally-fluted columns, Ionic capitals, an arched lintel, etc. since there exists no archaeological evidence whatsoever for such a baldachin aside from its presumed foundation. The high stepped podium on the coins would have to be accounted for by the supposition that the monumental flight of steps before the facade of the Heraion was erected at the latest during the reign of Domitian, whose coins depict such a podium (PLATE XII, 6), and not in the 2nd or 3rd century A.D. as Ohly suggests (*MDAI(Athen)* 1953, publ. 1956, pp. 28, 45). Reuther (*Heratempel*, pp. 36ff) believed that the construction of these steps took place early in the Roman period before the temple had fallen into disrepair and been abandoned as a cult place, and von Gerkan (review of *Heratempel*, p. 62) connected this stairway with the transfer of the cult statue to the pronaos. But von Gerkan's theory faces certain difficulties and F. E. Winter's review of *Heratempel* (pp. 92-93) states that the molding profiles of the marble stairway "can hardly be earlier than the second century after Christ." It would thus be important to determine the date of construction of the monumental stairway and of the Roman temple as well.

<sup>51</sup> Schleif, *MDAI(Athen)* 1933, pp. 220, 223.

<sup>52</sup> Schleif, *MDAI(Athen)* 1933, p. 218.

we are able to check the depiction of a temple on coins against the results of its excavation, are far greater than the resemblances.<sup>53</sup>

In order to appreciate the extent to which a die-engraver could transform the architectural reality of a temple to suit his own artistic convenience we may examine two coins of Magnesia ad Sipylum which bear on their obverse the heads of Otacilia Severa (PLATE XIII, 3 *SNGCop.*: *Lydia* 269) and Julia Mamaea (PLATE XIII, 4 *SNGCop.* 265). On the former coin are depicted four columns with Ionic capitals supporting an architrave upon which rests an arch spanning the wide central intercolumniation; above the arch the slanting cornices of the temple roof are decorated with a series of very short parallel lines representing antefixes, transferred by the engraver from the sides.<sup>54</sup> On the second coin, which must, because of the presence of the cult statue, represent the same temple, the column capitals are not recognizably Ionic but are simply indicated by rectangular bars; the slanting cornices are divested of their decoration of short vertical lines; but most important, the arched lintel over the central intercolumniation is no longer represented. With it has disappeared the architrave which served as its support, so that the

<sup>53</sup> For the sake of completeness may be mentioned here an interpretation of the numismatic evidence which might seem to support von Gerkan's theory discussed in note 50 above: the coin of Domitian (PLATE XII, 6) could be regarded as depicting the cult statue in the pronaos of the archaic temple, whereas the coins of Septimius Severus and subsequent emperors would depict the same statue in the Roman temple. This interpretation, however, encounters three objections, which together seem conclusive: (1) the only difference between the earlier and later coins with respect to the edifice sheltering the cult statue is in the form of the lintel, and we have already seen that such a change in the numismatic depictions of an edifice normally has no relation to architectural reality; (2) the theory that the statue was worshipped in the pronaos of the archaic temple under the Empire contradicts the statement of Strabo; (3) Schleif, *MDAI(Athen)* 1933, p. 218 apparently dates the construction of the Roman temple to the period of Augustus (Reuther, *Hera-tempel*, p. 36 suggests the time of Claudius) but if the cult statue stood in the pronaos of the archaic Heraion until the reign of Domitian (or even until Septimius Severus: see above, note 31) the Roman temple would have had no *raison d'être* during the first centuries of its existence.

<sup>54</sup> On this detail—another feature in which numismatic representation diverges from architectural reality—see the remarks of Dinsmoor in his review of *Hera-tempel*, *AmJPhilol* 68 (1947), p. 441.

slanting cornices now rest directly upon the column capitals.<sup>55</sup> This architecturally impossible arrangement is nothing more than a form of shorthand convenient for the die-engraver who, in contrast to the engraver responsible for the former coin, was less able or less willing to deal with the difficulties of representing details on a small scale and therefore simply eliminated what did not seem to him essential. Like the arched lintel, the absence of any lintel at all often has its explanation simply in the artistic methods of the die-engraver.<sup>56</sup> Less successful because less plausible, the latter fashion of depicting a temple was seldom employed.

A coin of Bruzus in Phrygia issued under Gordian III (PLATE XIII, 5 *SNGCop: Phrygia* 232) displays a similar type of pediment: here an architrave is represented above the lateral intercolumniations, so that the slanting cornices do not rest directly upon the capitals as on the coin of Magnesia; this architrave is interrupted over the wide central intercolumniation in order to leave sufficient space for the head and upper left arm of the statue of Zeus. It is apparent that this portion of the architrave was suppressed, just as the central intercolumniation was greatly widened, for purely artistic reasons; the overriding desire of the die-engraver to depict the cult statue as clearly as possible led

<sup>55</sup> Compare the similar depictions of this temple of Tyche on another coin of Julia Mamaea (*SNGvonaAulock: Lydien* 3006) and on a pseudo-autonomous issue (*Fitzwilliam, McClean* III, pl. 304, no. 1). On the coins of Magnesia are analogous representations of the temple of Cybele, e.g. *BMCLydia*, pl. 16, no. 7 (Crispina), *SNGCop.: Lydia* 272 (Etruscilla; on this coin is shown an architrave over the lateral intercolumniations), and *SNGCop: Lydia* 249 (a pseudo-autonomous issue from the same obverse and reverse dies as *SNGvonaAulock: Lydien* 2999; the temple is here shown as distyle).

<sup>56</sup> A comparable illustration of a temple of Artemis, represented without any lintel, occurs on a coin issued at Kadi under Trebonianus Gallus (*BMCPPhrygia*, p. 126, no. 47 and pl. 15, no. 7): here too, simplification of the architectural reality is obviously a result of the desire to give greater prominence to the cult image. This problem was solved in a more usual fashion on another coin of Kadi which bears on the obverse the head of Tranquillina (*SNGvonaAulock: Phrygien* 3691): here the same temple (unchanged cult statue) appears with an arched lintel, which affords equal space for the representation of the central image. See also *SNGvonaAulock: Nachträge IV: Phrygien* 8390 and *BMCPPhrygia*, pl. 15, no. 6, coins of Kadi which portray a statue of Zeus within a similar edifice with arched lintel.

to the elimination of what were considered minor architectural details.<sup>57</sup> A more sophisticated solution would have continued the architrave across the central intercolumniation in the form of an arch, thus remaining closer to the actual form of the monument while still leaving sufficient space for a clear representation of the cult statue.<sup>58</sup>

The conclusions that result from our examination of these coins of Magnesia and Bruzus hardly confirm Trell's rule of numismatic interpretation that departures from usual stylization were manifestations, not of artistic imagination, but of observed details. In accordance with this rule Trell has utilized, in a discussion of the influence of Eastern architectural forms upon Hellenic architecture,<sup>59</sup> certain numismatic representations of acanthus drums at the base of temple columns: "To be sure the examples of acanthus drums in Anatolia have been few. I can now add to the evidence three Phrygian coins (figs. 15, 16, 17) and this would indicate that the convention was more widespread in Asia Minor than has been supposed." The first two of the coins cited<sup>60</sup> are not exactly "Phrygian" but rather are issues of the Greek city Aezani in the Roman province of Asia; whether or not they actually do depict acanthus drums, the temple which they illustrate is still largely standing and shows on its column bases no evidence whatsoever of the use of this motif.<sup>61</sup> A hypothesis of the sort invoked to resolve

<sup>57</sup> See also *SNGvonaAulock: Phrygien* 3527 (the same obverse die), *BMCPPhrygia*, p. 113, no. 22 and MacDonald, *Hunterian Collection* II, p. 480, no. 1 (not illustrated, but doubtless the same type).

<sup>58</sup> An issue of Tarsus under Gordian III (*SNGCop.: Cilicia* 385; *SNGvonaAulock: Kilikien* 6055) exemplifies another kind of numismatic simplification due to the necessity to depict the central image even at the expense of the architecture. The temple stylobate, which appears below the two columns at each side of the facade, is interrupted beneath the central intercolumniation in order to leave room for the representation of the river god who swims at the feet of the seated city goddess (see also the similar interruption of the stylobate on coins of Nisibis, e.g. *BMCArabia*, pl. 17, nos. 10, 11, 14).

<sup>59</sup> B. Trell, *Essays . . . Lehmann*, p. 349; see also p. 348 note 22.

<sup>60</sup> *BMCPPhrygia*, p. 37, no. 104, p. 38, no. 109. The third is a coin of Amorion struck under Marcus Aurelius, *BMCPPhrygia*, p. 53, no. 36 and pl. 8, no. 2.

<sup>61</sup> In citing only two coins to support her point and in omitting any reference to the preserved remains of the building under discussion, does not Trell violate her own principles laid down in *Ephesos*, pp. 1-2? For photographs of the temple at Aezani in its present state see e.g. E. Akurgal, *Ancient Civilisations and Ruins of Turkey*,

similar contradictions, that the temple in question underwent a complete reconstruction after it was depicted on the coins, can hardly serve in the present instance since it is agreed that the temple of Zeus at Aezani as it now stands was built in the Hadrianic period whereas the coins cited were struck under Antoninus Pius and Marcus Aurelius.<sup>62</sup>

Another topic for which numismatic evidence has been adduced is the identification of a large temple on the west side of the Agora at Ephesus, which was designated by J. Keil as a Serapeion.<sup>63</sup> Trell stated that "This temple appears on the coins of Ephesus; it was a shrine built for Hadrian, and dedicated to the provincial worship of the emperors, as numismatic evidence indicates."<sup>64</sup> To demonstrate this theory it is necessary to show that the temple of Hadrian represented on the coins of Ephesus is actually a depiction of the building excavated on the west side of the Agora. This excavated building displayed in its pediment three rectangular openings<sup>65</sup> but on the coins the temple of Hadrian has only one. "This apparent discrepancy in the identification can easily be explained away by reference to the numismatic tradition of abbreviation: in the

2nd ed. (Istanbul, 1970), pl. 79. Compare Dinsmoor, *Architecture of Ancient Greece*, p. 277. The peristyle bases are of the Asiatic form with plinths. These bases are discussed by H. Weber, "Der Zeus-Tempel von Aezani: Ein panhellenistisches Heiligtum der Kaiserzeit," *MDAI(Athen)* 1969, p. 199 and illustrated on his pl. 81, no. 3.

<sup>62</sup> Following such theories it would in any case be necessary to postulate both destruction and rebuilding of the temple during the reign of Marcus Aurelius, since an issue under this emperor (*SNGvonaulock: Phrygien* 3357; see also *BMCPPhrygia*, p. 39, no. 113) shows the temple (identified by the cult statue) with an arched lintel whereas another coin of the same monarch (*BMCPPhrygia*, p. 38, no. 109, illustrated by Trell, "A Further Study," fig. 16) depicts the same edifice with its octastyle facade under a straight lintel.

<sup>63</sup> J. Keil, "XII. Vorläufiger Bericht über die Ausgrabungen in Ephesos, "Jahreshefte. *ÖstArchInst* 1926, Beibl. cols. 265-270. See also R. Heberdey, "XI. Vorläufiger Bericht über die Grabungen in Ephesos, 1913," *Jahreshefte. ÖstArchInst* 1915, Beibl. col. 84 who identified the building as a "reich ausgestattetes Brunnenhaus." See the objections of Keil, cols. 285-286.

<sup>64</sup> B. Trell, *Ephesos*, p. 18.

<sup>65</sup> See the reconstruction by W. Wilberg and M. Theuer reproduced as pl. 61 on p. 71 of F. Miltner, *Ephesos: Stadt der Artemis und des Johannes*, Vienna, 1958; pl. 55 on p. 103 of J. Keil, *Ephesos: Ein Führer durch die Ruinenstätte und ihre Geschichte*, 5th ed., Vienna, 1964; and pl. 17 Abb. 31 of R. Salditt-Trappmann, *Tempel der ägyptischen Götter in Griechenland und an der Westküste Kleinasiens*, Leiden, 1970.

pediments of all three imperial neocorate temples—as well as in that of the Artemision—the single rectangle has reference to three openings” (Trell, p. 57). Furthermore the excavated building is only prostyle<sup>66</sup> but “the coins represent the temple of Domitian and the temple of Hadrian as peripteral. They also show both as Ionic; we know that the so-called Serapeion was Corinthian” (Trell, p. 58). The reason is that “The two neocorate temples are made to appear as Ionic, whether or not they were Ionic, to conform to the order of the Artemision, and their design is made to appear identical, in accordance with the numismatic tradition of multiple coins” (Trell, p. 58). Thus the numismatic depiction of the temple of Hadrian differs from the excavated building in every respect: the former is a peripteral Ionic edifice with one pedimental opening, the latter a prostyle Corinthian edifice with three openings.<sup>67</sup> Conversely there is not a single element common to the excavated building and the structure shown on the coins, beyond the fact that they are both temples.<sup>68</sup> It is therefore apparent, purely on numismatic grounds, that there exists no basis for this identification of the Serapeion as a temple of Hadrian. Although Trell remains unaware or unconvinced,<sup>69</sup> since the first publication of her theory there have appeared two further discussions of the topic by Keil with additional epigraphic proof of his identification,<sup>70</sup> which is now generally accepted.<sup>71</sup>

<sup>66</sup> The plan by R. Heberdey, *Jahreshefte. ÖstArchInst* 1915, col. 82 Abb. 30 is reproduced as Plan 3 in Salditt-Trappmann, *Tempel . . . Kleinasien*.

<sup>67</sup> In addition to these objections may be noted the fact, nowhere mentioned by Trell, that the construction of this building was dated by the excavators to the middle or second half of the 2nd century A.D., a generation later than the coins of Hadrian on which it is said to be depicted (see Heberdey, *Jahreshefte. ÖstArchInst* 1915, col. 86: “Ornamentik und Arbeit verweisen, mit anderen ephesische Bauten verglichen, das Nymphaeum in die Zeit des Antoninus Pius;” Keil, *Jahreshefte. ÖstArchInst* 1926, col. 266: “kaum vor der Mitte des 2. nachchristlichen Jahrhunderts” and *Ephesos*, 5th ed., p. 104: “späte 2. Jahrhundert n. Chr.”)

<sup>68</sup> The excavated building possessed an octastyle facade (see above note 66) but the temple of Hadrian is nowhere depicted on the coins with such a facade.

<sup>69</sup> B. Trell, “A Further Study,” (*Essays . . . Lehman*), pp. 347, 357, continues to designate the building in question as the “so-called Serapeion at Ephesus.” See note 132 below.

<sup>70</sup> J. Keil, “Das Serapeion von Ephesos,” *In Memoriam Halil Edhem* 1 (Ankara, 1947), pp. 181–192, with extensive discussion of previous bibliography and detailed refutation of the suggestions that the building was an imperial temple (H. Lietzmann,

The neocorate temple of Hadrian at Ephesus has since been identified with a small recently excavated temple dedicated to this emperor<sup>72</sup> of which the most notable architectural feature is an arched lintel above the central intercolumniation, over which the architrave and frieze are both carried unbroken. Bowie argued against the identification of this building as the neocorate temple of Hadrian,<sup>73</sup> and one of the objections he adduced is the following: "The four temples of Ephesus which by the early third century had won it the title of 'four times neokoros' are depicted on coins *BMC Ionia* pp. 90–91 nos. 305–6. None of the temples on the coins has the rounded arch between the two central columns of the facade which one would have thought to be an identifying feature of the building in Curetes street." However, we have seen that numismatic representations of this feature rarely furnish a base

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*Geschichte der alten Kirche* 1 (Berlin, 1932), p. 168; still in the second, 1937, edition) or a nymphaeum (Heberdey, *Jahreshefte. ÖstArchInst* 1915 and G. Karo, from information provided by W. Wilberg, "Archäologische Funde im Jahre 1913: Kleinasien," *AA* 1914, p. 170); also J. Keil, "Denkmäler des Sarapiskultes in Ephesos," *Anzeiger. ÖstAkadWiss, phil.-hist. Klasse* 1954, pp. 217–228; see J. and L. Robert, "Bulletin épigraphique," *REG* 1955, p. 258, no. 193).

<sup>72</sup> See F. Miltner, *Ephesos*, who emphasizes the immense size of the building and offers reconstruction of the cult ceremonies it sheltered. The evidence for the identification as a Serapeion has most recently been assembled by Salditt-Trappman, *Tempel . . . Kleinasien*, pp. 26–27. In chapter II of her work, Salditt-Trappmann gives a brief description with photographs of the ruins of the building and explains how they may have served for the cult practices therein. Neither of these scholars, nor Keil, ever mentions the theory of Trell.

<sup>73</sup> For a photograph of the restored facade of the temple see Akurgal, *Ancient Civilisations*, pl. 56b. The identification of this temple of Hadrian as the second neocorate temple of Ephesus was made by F. Miltner, *Jahreshefte. ÖstArchInst* 1959, Beibl. col. 266.

<sup>74</sup> E. L. Bowie, "The 'Temple of Hadrian' at Ephesos," *Zeitschrift für Papyrologie und Epigraphik* Vol. 8 (1971), pp. 137–141. For numismatic depictions of the neocorate temple of Hadrian, Bowie could also have cited Trell, *ANSNM* 107, Pl. VI nos. 5 and 6 (coins of Hadrian and Antoninus Pius, under whom Ephesus was *δὲ νεωκόρος*) and Pl. VI no. 7, Pl. VII no. 1 (coins of Caracalla, who granted to Ephesus a third neocorate for the great temple of Artemis). The discussion by Trell, *Ephesos*, pp. 51–52, 62, of the history of the Ephesian neocorates is erroneous. See most recently L. Robert, "Sur des inscriptions d'Éphèse," *Revue de Philol* 41 (1967), pp. 44–57.

for firm conclusions concerning the identification of the architecture depicted. Bowie's view has recently been contested by Engelmann.<sup>74</sup>

We have discussed a number of reasons why some numismatic representations of temples with arched lintels do not correspond to architectural reality. On other coins, such as issues of Antioch in Syria under Trebonianus Gallus (PLATE XIII, 6 ANS) or of Damascus under Septimius Severus (PLATE XIV, 1 *SNGCop: Syria* 421), what seems at first glance to be an arched temple lintel is actually a curved canopy over a portable shrine.<sup>75</sup> For the low arch and curious roof compare the representation of the circular temple of Tyche on the coins of Side discussed below (p. 53); the key to the nature of this structure is the row of slanting parallel lines which protrude from its bottom, for these are meant to represent the poles which served to transport this movable shrine.<sup>76</sup>

<sup>74</sup> H. Engelmann, "Der Tempel des Hadrian in Ephesos und der Proconsul Servaeus Innocens," *Zeitschrift für Papyrologie und Epigraphik* vol. 9 (1972), pp. 93–95. On this matter see J. and L. Robert, "Bulletin épigraphique," *REG* 1972, p. 455, no. 391 against Engelmann.

<sup>75</sup> Compare the canopy above the great altar at Pergamum depicted on a coin of Septimius Severus which is discussed by H. von Fritze, *Münzen von Pergamon*, pp. 85–86 (pl. 9, no. 3); the description in *BMCMysia*, p. 152, no. 315 is to be rectified accordingly. See also the domed shrine on coins of Laodicea ad Mare (*BMCGalatia*, pl. 30, no. 14, pl. 31, no. 7). See also Donaldson, *Architectura Numismatica*, p. 99. Discussing a coin similar to that illustrated here as PLATE XIII, 6, ANS, Donaldson stated that "the building may represent a four-columned cella, or a canopy or baldachin within a great temple. . . . I am inclined to think that it is meant to figure a tabernacle with two front columns, and showing the two columns on the return on each flank, the flat arch being raised over the centre to allow a better view of the statue." In addition to the example from the collection of the ANS illustrated here, others may be found in *BMCGalatia*, pls. 25, 26; *Fitzwilliam, McClean* III, pl. 347; *MacDonald, Hunterian* III pl. 73; R. Hampe et al., *Heidelberger Neuerwerbungen 1957–1970* (Mainz 1971), pl. 107, no. 145 (enlarged); and *SNGCop.: Syria*, pl. 8 (where the edifice is described as a tetrastyle temple). This type is misunderstood also by Kadman, *Israel Numismatic Bulletin* Nos. 3–4 (Aug.-Dec. 1962), p. 76.

<sup>76</sup> See H. Seyrig, "Antiquités syriennes," *Syria* 1937, p. 376 (= *Antiquités syriennes* Ser. 2 [Paris, 1938], p. 114). For numismatic representations of similar portable shrines with affixed carrying poles at Tyre see G. F. Hill, "Some Graeco-Phoenician Shrines," *JHS* 1911, pp. 61–62 and pl. 4, nos. 23, 25; and another type in *BMCPheonicia*, p. 283, no. 435 and pl. 34, no. 14. Compare the coin of Sidon published by J. Rouvier, "Numismatique des villes de la Phénicie," *JIAN* 1902, p. 281, no. 1451 and pl. 9, no. 1 and the coins of Heliopolis (Baalbek) discussed by S. Ronzevalle,



As for the coin of Damascus, another issue depicting the same edifice (PLATE XIV, 2 ANS), also struck under Septimius Severus, shows clearly that what appeared on the type illustrated as PLATE XIV, 1 to be an arched lintel represented in stylized fashion by a double row of pearls is in fact a curved roof.<sup>77</sup> The latter coin is erroneously described in *SNGCop.*: Syria 421 as depicting a "tetrastyle temple," but Wroth interpreted a similar type as showing a "shrine raised on basis ornamented with two wreaths."<sup>78</sup> This shrine too was doubtless portable, like the structure at Antioch which was carried by poles on men's shoulders or like shrines in other cities that moved on wheels; for an unquestionable numismatic representation of such a wheeled shrine compare a coin of Sidon (PLATE XIV, 3 JIAN 1902, pl. X, no. 19) on which the edifice is shown with its wheels and their spokes clearly indicated.<sup>79</sup> It is evident that the struc-

"Notes et études d'archéologie orientale: Le prétendu char d'Astarté," *Mélanges de l'Univ. St-Joseph* (Beirut, 1934), pp. 142-144. See also L. Kadman, *The Coins of Akko Ptolemais* (Tel Aviv, 1961), p. 132, no. 206 (pl. 14) and p. 142, no. 256 (pl. 18). S. Handler, *AJA* 1971, p. 64, interprets certain coins of Alexandria as depicting portable shrines.

<sup>77</sup> Under Commodus were struck coins at Laodiceia ad Mare (*BMCGalatia*, p. 257, no. 78 and pl. 30, no. 8; *SNGCop.*: Syria 358, 359) depicting the bust of the city Tyche within a similar distyle shrine consisting of two columns with capitals surmounted by a schematically represented arch; under Septimius Severus this Tyche has the features of Julia Domna (*BMCGalatia*, p. 258, no. 81 and pl. 30, no. 9).

<sup>78</sup> *BMCGalatia*, p. 284, no. 11 and pl. 34, no. 9; compare pl. 35, no. 3.

<sup>79</sup> Enlarged photographs of several varieties of this type were published by S. Ronzevalle: "Notes et études d'archéologie orientale: Le prétendu "char d'Astarté" et son "bétyle" dans la numismatique de Sidon," *Mélanges de l'Univ. St-Joseph* (Beirut, 1932), pls. 8-10; see the discussion by Seyrig, "Antiquités syriennes," *Syria* 1959, pp. 46-51 (= *Antiquités syriennes* Ser. 6 [Paris, 1966], pp. 22-25). On some varieties (e.g. *BMCPoenicia*, pl. 23, nos. 9, 17) are depicted two or three poles (identified p. 175, no. 197 as "two transverse lines") projecting from the front of the vehicle which Ronzevalle, *Mélanges . . . St.-Joseph* 1932, p. 52 sees as indications of their portability. See also a coin of Philadelphia in CoeleSyria struck under Marcus Aurelius (*BMCGalatia*, pl. 39, no. 9) which depicts a shrine on two wheels with a curved roof supported by four columns, drawn by four horses and identified by the legend 'Ηράκλειον ἄρμα. See also L. Kadman, *The Coins of Aelia Capitolina* (Jerusalem, 1956), p. 51 and pl. 12, nos. 146-149; pl. 13, no. 151; R. E. Hecht, "Some Greek Imperial Coins in my Collection," *NC* 1968, p. 35; and Martin Price, "Greek Imperial Coins. Some Recent Acquisitions by the British Museum," *NC* 1971, p. 127 for coins with the sacred stone of Elagabalus

ture at Sidon had one column at each of its four corners although the die-engraver did not represent them in perspective. An epigraphical example of such a portable shrine is furnished by an honorific decree of Palmyra.<sup>80</sup>

With these numismatic representations of shrines (as distinct from temples) may be compared a type on coins of Byblus struck under Elagabalus (PLATE XIV, 4 *JIAN* 1901, pl. B, no. 10). Rouvier described this coin as showing a "temple à quatre colonnes formant trois portiques, et à toit pyramidal,"<sup>81</sup> and Hill described a specimen at the British Museum as depicting a "temple with four columns . . . the temple has large central and two smaller side arches, and indication of pyramidal roof."<sup>82</sup> This interpretation of the type was followed by Grose and Mørkholm,<sup>83</sup> but Hill also suggested that the temple represented was "possibly of a hexagonal form."<sup>84</sup> Since no more than four columns are ever depicted on the coins of this series, it might be simpler to regard the edifice in question as possessing only four corners with one column at each; and rather than interpreting the representation as the facade of a tetrastyle temple (for in that case the building would have double

in a processional vehicle drawn by four horses. At Ephesus a popular coin type represents a covered wagon with arched roof, drawn by two or four mules, with the legend *ἑρμὸς ἀπὸ ἡνιόχης*; variations of this type were struck with obverses of Antoninus Pius (*JHS* 1897, pp. 87–88), Commodus (*BMC Ionia*, nos. 251 ff.; *SNG von Aulock: Ionia* 1892), Julia Domna (*SNG Cop.: Ionia* 417; *SNG Fitzwilliam* 4446; *BMC* 267), Caracalla (*BMC* 278–279), Julia Paula (*SNG Cop.* 454), Alexander Severus (*SNG Cop.* 458; *SNG Fitzwilliam* 4453), Julia Mamaea (*SNG von Aulock* 1911; *BMC* 328), Maximinus (*SNG Cop.* 471), Gordian III (*BMC* 335), Philip (*BMC* 348), Valerian (*BMC* 369), and Gallienus (*BMC* 376, 387; *SNG von Aulock* 1930; *Fitzwilliam, McClean* III 8130). The sides of this sacred wagon were decorated with garlands (e.g. *BMC*, pl. 13, no. 13, *SNG von Aulock* 1911 and 1930); note that a variant (*SNG Cop.: Syria* 292) of the type at Antioch illustrated here as PLATE XIII, 6 shows between the poles a series of small round objects which have been identified as wreaths (see also PLATE XIV, 2). See the ritual in Herodotus 2.63 and C. Koch in *RE* s.v. *tena*.

<sup>80</sup> Seyrig, "Antiquités syriennes," *Syria* 1937, pp. 372 (110), 376 (114).

<sup>81</sup> J. Rouvier, "Numismatique des villes de la Phénicie," *JIAN* 1901, p. 57, no. 713; see also the description of no. 711.

<sup>82</sup> *BMC Phoenicia*, p. 106, no. 56 and pl. 13, no. 1.

<sup>83</sup> *Fitzwilliam Museum, McClean Bequest* III, p. 371, no. 9487: "tetrastyle temple with pyramidal roof." *SNG Cop.: Phoenicia* 146–148 (same description).

<sup>84</sup> *BMC Phoenicia*, p. lxx.

raking cornices) it seems preferable to consider it as showing a lightly constructed shrine with four straight ribs supporting a canopy arched between the columns at each side. Although these details are not represented in perspective, they appear clearly on an enlarged reproduction of the coin in the British Museum published by Hill.<sup>85</sup>

It is significant that on other coins also struck under Elagabalus, of which one is illustrated here as PLATE XIV, 5 (*BMCPhoenicia*, pl. 13, no. 3), the same edifice is shown frontally in such a way that it appears to consist of a common tetrastyle facade with arched lintel.<sup>86</sup> Hill justly comments that "but for the evidence of the previous coins, one would not suspect that the roof was different from the ordinary form;"<sup>87</sup> and the same is true of other features of this edifice as well. Among the numerous numismatic representations of "tetrastyle temples with arched lintels" there are doubtless some which really depict shrines similar to this one at Byblus but which cannot be thus interpreted because there exist no coins that illustrate the same edifices with greater fidelity. Another example of this numismatic trend toward simplification and conventional rendering is furnished by a shrine depicted on coins of Seleuceia Pieria struck under Trajan<sup>88</sup> which show in perspective its four columns and pyramidal roof (PLATE XIV, 6 *BMCGalatia*, pl. 33, no. 3). Under subsequent emperors<sup>89</sup> the same shrine is represented frontally (PLATE XIV, 7 *BMC Galatia*, pl. 33, no. 8), the four columns placed as though they stood in a line on the facade;<sup>90</sup> and on a coin of Elagabalus (*SNGCopenhagen: Syria Cities* 410) these four columns are reduced to two: a good in-

<sup>85</sup> G. F. Hill, "Some Graeco-Phoenician Shrines," *JHS* 1911, pl. 3, no. 13. A. Helsenberg, *Grabeskirche und Apostelkirche* 1 (Leipzig, 1908), pl. 13, nos. 3, 7 illustrates two coins with similar types also struck under Elagabalus (not Caracalla: see Hill, *JHS* 1911, note 16) at Paris and Berlin respectively (some of these coins are apparently from the same die).

<sup>86</sup> See also *SNGCop.: Phoenicia* 148.

<sup>87</sup> *BMCPhoenicia*, p. lxx. See also *JHS* 1911, p. 59.

<sup>88</sup> *BMCGalatia* pl. 32, no. 9, pl. 33, no. 3; *SNGCop.: Syria* 403-405.

<sup>89</sup> Antoninus Pius *BMC*, pl. 33, no. 4), Elagabalus (*BMC*, pl. 33, no. 7), Alexander Severus (*BMC*, pl. 33, no. 8 and *SNGCop.: Syria* 411-412).

<sup>90</sup> This difference misled the editor of the British Museum catalogue and, after him, the editor of the Copenhagen volume, both of whom distinguished as separate edifices the "shrine" depicted on coins of Trajan and the "temple" shown on coins of later emperors; all these issues represent the same edifice.

stance of the variations that are possible in the numismatic representation of such a structure, which could not be interpreted correctly on the basis of the later coins without the evidence offered by the depiction in perspective under Trajan.

Another numismatic depiction of an arched lintel, on coins of Side in Pamphylia struck under Gallienus,<sup>91</sup> has been revealed by actual excavation of the monument as a die-engraver's artistic convention: the coins show a seated statue of Tyche inside a tetrastyle building with arched lintel and pyramidal roof, but excavation has shown the building in question to be a round temple with twelve columns and flat architrave.<sup>92</sup> Other round temples are correctly depicted with straight lintels on coins of Asia Minor<sup>93</sup> and Greece.<sup>94</sup> An architectural example, on a small scale, of this type of edifice is the funerary aedicula consisting of a baldachin with elliptical cupola at Elaioussa Sebaste.<sup>95</sup> The temple of Marnas at Gaza, which is known from literary sources to have been circular, is represented on the coins of that city as a conventional distyle

<sup>91</sup> A. M. Mansel, G. Bean and J. İnan, *Die Agora von Side und die benachbarten Bauten: Bericht über die Ausgrabungen im Jahre 1948* (Türk Tarih Kurumu Yayınlarından V. Seri No. 15: *Untersuchungen in der Gegend von Antalya* No. 4) (Ankara, 1956), frontispiece and pl. 13, nos. 47, 48 (discussion p. 35).

<sup>92</sup> See the reconstructions suggested in Mansel, et al., *Agora von Side*, pls. 46–48.

<sup>93</sup> Cistophori of C. Fannius struck at Apamela (*BMCPPhrygia*, p. 73, no. 31 and pl. 1, no. 6), Ephesus (*BMCIonia*, p. 68, no. 177 and pl. 12, no. 11), and Laodicea (F. Imhoof-Blumer, *Kleinasiatische Münzen* 1 [Vienna, 1901], p. 264, no. 7); see also coins of Philomellon (*BMCPPhrygia*, p. 359, no. 34 and pl. 42, no. 3) and Prusa (W. H. Waddington, E. Babelon and T. Reinach, *Recueil général* [Paris, 1904], Bithynie, p. 591, no. 116 and pl. 101, no. 22), and Antioch in Pisidia (E. Babelon, *Inventaire Waddington* [Paris, 1897–1898], 3605 and pl. 8, no. 2 = Imhoof-Blumer, *Kleinasiatische Münzen* 2 [Vienna, 1902], p. 362, no. 25 and pl. 12, no. 20 = A. Krzyżanowska, *Monnaies coloniales d'Antioche de Pisidie* [Warsaw, 1970], p. 183 and pl. 37, Rev. 84; and p. 178 and pl. 33, Rev. 29: on this die the podium is not shown in order to leave more space for the depiction of the central figure).

<sup>94</sup> F. Imhoof-Blumer and P. Gardner, *Numismatic Commentary on Pausanias* [REG 1885–1887]. (Re-edited by A. N. Oikonomides under the title *Ancient Coins Illustrating Lost Masterpieces of Greek Art*, (Chicago, 1964) illustrate coins of Corinth: pl. B, nos. 11–13 (see p. 11) and pl. FF, no. 5 (see p. 154); Argos: pl. GG, nos. 6, 8 (see p. 161); Epidauros, etc.

<sup>95</sup> A. Machatschek, *Die Nekropolen und Grabmäler im Gebiet von Elaioussa Sebaste und Korykos im rauhen Kilikien* (Denkschriften der öst. Akad. der Wiss. Vol. 96 No. 2) Vienna, 1967, pp. 114–116 and pl. 55.

edifice with straight lintel and triangular pediment. Hill suggested that "This summary rendering may be due to the fact that two figures had to be represented in the temple, and the engraver did not feel capable of giving many details of the architecture as well." Later Hill repeated the same suggestion but also offered a less probable alternative explanation: "What is seen on the coins is doubtless a front portico, like that of the Pantheon."<sup>96</sup>

We have thus seen that numismatic representations of arched lintels may often be explained either as artistic convention or as depictions of edifices, such as portable shrines, which are not real temples. Another class of coins depicting "arched temple lintels" illustrates not the temple facade but rather the cult statue within its niche or baldachin set against the back wall of the cella, as seen from *inside* the temple.<sup>97</sup> Such niches enclosing the cult image are archaeologically attested for example in the octastyle "temple of Bacchus" at Baalbek,<sup>98</sup> the temple of Artemis

<sup>96</sup> G. F. Hill, "Some Palestinian Cults in the Graeco-Roman Age," *Proc British Acad* 1911–1912, pp. 424–425. For the second quotation, see *BMCPalestine*, p. lxxvi note 1.

<sup>97</sup> Compare Dinsmoor's review of Trell, *Ephesos: AmJPhilol* 68 (1947), p. 441: "another element should be added to the [numismatic] code, that is, if not 'invention,' at least 'transposition' or 'transference' . . . we might explain the 'arculated lintels'—which often enframe the heads of cult statues transferred to the facade plane—as the tops of niches or shrines within the respective cellae." For a general discussion of such niches enclosing the cult image in temple cellas see D. Krencker and W. Zschietzschmann, *Römische Tempel in Syrien* 1 (Berlin/Leipzig, 1938), pp. 285–293. For an example of an arched lintel over a monumental structure enclosing the cult statue at the back of a cella see p. 114, Abb. 155. Examples in Christian architecture of arched baldachins or ciboria over the altars of churches such as Hagia Sophia are cited by H. Hörmann in *Forschungen in Ephesos* IV, 3: *Die Johanneskirche* (Vienna, 1951), pp. 174–175 and note 93, with Abb. 49 on p. 177 and pl. 36.

<sup>98</sup> T. Wiegand, *Baalbek* 2 (Berlin/Leipzig, 1923), pl. 17 (see pp. 38–40), reproduced in D. S. Robertson, *A Handbook of Greek and Roman Architecture* 2nd ed. (Cambridge, 1943), pl. 13 (see pp. 228–230). Compare a coin of Anazarbus struck under Maximinus (Babelon, *Inventaire Waddington* 4148; see also *BMCLycaonia*, p. cvii) which seems to represent the inner shrine of the great decastyle temple, of which the facade is depicted for example on *BMCLycaonia*, p. 33, nos. 12–13. See also M. Gough, "Anazarbus," *Anatolian Studies* 1952, pp. 106–108: at either side of the stairs that led up from the cella into the inner shrine is a projecting pedestal surmounted by a statue on a high base and enclosed by columns supporting an architrave. At Baalbek a

at Gerasa,<sup>99</sup> and the temple of Zeus at Aezani.<sup>100</sup> An unmistakable numismatic representation of such a shrine occurs on a coin of Neocaesarea in Pontus struck under Septimius Severus;<sup>101</sup> shrines also appear on issues of Patara in Lycia under Gordian III<sup>102</sup> and Aradus in Phoenicia under Elagabalus,<sup>103</sup> though certain coins of Emesa depict a different subject.<sup>104</sup> A shrine with four spirally-fluted columns on coins of Nisibis struck under Philip (PLATE XIV, 8 *BMCArabia*, pl. 17, no. 14) is described as a "tetrastyle temple;"<sup>105</sup> in fact the edifice consists only of columns and canopy, without the architectural elements that comprise a temple proper. On these coins the base and capital of the outer column at each side of the tetrastyle edifice are usually represented as appreciably higher than the corresponding elements of the inner column: this seems

niche with shell pattern is restored directly behind the cult statue (see Wiegand, *Baalbek* 2, pl. 14).

<sup>99</sup> See the description of the cella interior in Carl H. Kraeling, ed., *Gerasa: City of the Decapolis* (New Haven, 1938), p. 137.

<sup>100</sup> See Dinsmoor, *Architecture of Ancient Greece*, p. 278.

<sup>101</sup> A. R. Bellinger, *The Eighth and Ninth Dura Hoards* (ANSNM 85) (New York, 1939), p. 80, no. 340 and pl. 12.

<sup>102</sup> *SNGvonAulock: Lykien* 4384; *BMCLycia*, p. 78, no. 20: the type itself can leave no doubt that what is depicted is a baldachin and not a "temple with arched roof." For a similar canopy supported by two figures see *BMCLycaonia*, p. 190, no. 163 and pl. 34, no. 10 (Tarsus).

<sup>103</sup> *BMCPHOENICIA*, p. 50, no. 386 described this issue (pl. 38, no. 13) as showing a "temple of Tyche, of two columns with shell-pattern in arch above" (see p. xxxvii) but it is difficult to believe that this coin really shows a temple facade with semi-circular pediment rather than a shrine or niche enclosing the cult statue. For the shell pattern see Kadman, *Israel Numismatic Bulletin* Nos. 3-4 (Aug.-Dec. 1962), p. 80, note 18.

<sup>104</sup> Donaldson, *Architecture Numismatica*, p. 73, offers an enlarged drawing of a coin type of this city which he interprets as depicting "a canopy or shrine or tabernacle." However *BMCGalatia*, p. 239, nos. 15-17 and pl. 27, nos. 12-14 states that the conical stone is "shaded by two parasols" and this interpretation has been supported by subsequent scholars, e.g. A. Dieudonné, "Numismatique syrienne," *RN* 1906, pp. 142, 144, 150 (no. 14) and 153 (no. 19). According to R. Delbrueck, "Uranus of Emesa," *NC* 1948, p. 12, the sacred stone is depicted "with fans at the sides."

<sup>105</sup> Bellinger, *Dura 8 and 9*, p. 40, no. 130 (on pl. 6), follows the description by Hill of the coins in *BMCArabia* pl. 17, nos. 10, 11, 14; others are in *SNGCopenhagen: Palestine—Characene* 240, 242, 244.

to be an effort at perspective by the die-engraver, who wished to indicate that the four columns shown were not all placed in a straight line but rather stood one at each of the four corners of a square. The same statue of Tyche<sup>106</sup> with ram above and river god below is depicted on another coin of Nisibis (PLATE XIV, 9 *BMC Arabia*, pl. 17, no. 12) which shows according to Hill a "temple with two twisted columns, pediment, and steps in front; within shrine, of which panelled doors stand open, City-goddess seated." Elsewhere Hill suggested that on this coin "instead of inner columns, a panelled wall, perhaps the front wall of the cella, appears to be represented."<sup>107</sup> The cult statue is identical on both types but there are great differences between the structure depicted on PLATE XIV, 8 and that on PLATE XIV, 9. The former shows a lightly constructed edifice with canopy on four columns, whereas the latter depicts a temple with straight lintel and two columns supporting a decorated pediment which surmounts, according to the two interpretations of Hill, a pair of panelled doors or the cella wall, above a flight of steps.

Explaining that the building in question had been destroyed and reconstructed between the dates of issue of these two coins will hardly serve to account for these differences, because both coins were struck during the short reign of Philip; on the other hand it is difficult to believe with Hill that the coins merely display two representations of the same structure. A third interpretation may be suggested: the coin illustrated on PLATE XIV, 8 depicts a baldachin above the statue, doubtless in the interior of the cella (it may also be that the city-goddess was worshipped in two different edifices at Nisibis). On the other hand, the coin on PLATE XIV, 9 shows the facade of a temple.<sup>108</sup>

Other coins which seem to show temple facades with arched lintels actually depict the monumental entrance in the peribolos wall surrounding a sacred temenos within which stood the edifice housing the cult image. Among them are coins of Capitolias discussed by Seyrig representing a statue of Zeus within such a monumental peribolos entrance,

<sup>106</sup> For a list of cities which struck coins thus depicting the Tyche, see T. Dohrn, *Die Tyche von Antiochia* (Berlin, 1960), pp. 52–58.

<sup>107</sup> *BMC Arabia* p. 123, no. 25 and p. cix.

<sup>108</sup> For a general discussion of such shrines inside temple cellas see E. Will, "L'adyton dans le temple syrien," *Études d'archéologie classique* 2 (1959) (= *Annales de l'Est*, Mémoire No. 22), pp. 136–145, notably p. 138.

whereas other issues of the same city display the statue inside its de-  
castyle temple.<sup>109</sup> Compare also Seyrig's discussion of coins of Dion  
which depict a hexastyle facade with arched lintel over a blazing altar.<sup>110</sup>  
These numismatic representations, and others that may be interpreted  
in a similar manner, are characteristic of regions in which the sacred  
temenos often enjoyed an importance assigned elsewhere to the temple  
itself.

It is thus clear that archaeological evidence for the arched lintel de-  
picted on coins is complex; it must also be pointed out that numismatic  
attestations of this feature are quite abundant. Trell states that she  
studied coins depicting 38 temples and that of these "only nine are shown  
on the coins with arcuated entablature."<sup>111</sup> In fact, more than sixty  
cities in the Greek East issued coins under the Roman Empire depicting  
edifices with arched lintels. In Asia Minor the great majority of cities  
which issued such coins were located in the Province of Asia as distinct  
from the interior regions of Galatia and Cappadocia, the northern tier  
of Bithynia, Paphlagonia and Pontus, and the southern coast (Lycia,  
Pamphylia and Cilicia);<sup>112</sup> with the increasing use of architectural re-  
presentations in general as coin-types, the number of cities depicting  
an arched lintel on their coins increased progressively during the second  
half of the second century and the first part of the third until the ces-  
sation of the municipal coinage. Most issues depicting temples with  
arched lintels were struck during the period from the beginning of the  
reign of Septimius Severus through that of Gallienus. When studying  
the architectural counterpart of this numismatic testimony it is im-  
portant to distinguish between buildings in which the horizontal en-  
tablature was carried unbroken over the curve of the arch<sup>113</sup> and those

<sup>109</sup> Seyrig, "Antiquités syriennes" *Syria* 1959, pp. 60-63, 192 fig. 3 (= *Antiquités syriennes* Ser. 6 [Paris, 1966], pp. 34-37, p. 50, fig. 5); *Syria* 1959, pl. 12, nos. 6-8, 10, 13, 14.

<sup>110</sup> Seyrig, "Antiquités syriennes," *Syria* 1959, p. 68 (= *Antiquités syriennes* Ser. 6, p. 41) with pl. 13, nos. 15-16.

<sup>111</sup> Trell, *Ephesos*, p. 47.

<sup>112</sup> A number of cities in the last two districts did, however, issue coins depicting arched lintels: Aspendus, Side, Anemurium, Aegeae and Anazarbus.

<sup>113</sup> See, for example, a portico at Baalbek (Robertson, *Handbook*, p. 227 and fig. 97), parts of the Palace of Diocletian (Robertson, *Handbook*, pp. 318 ff. and pl. 24), a temple in the Hauran (S. Butler Murray, *Hellenistic Architecture in Syria* [Prince-



in which the entablature was interrupted by an independent arch, as (for example) on structures at Termessus and Sardis,<sup>114</sup> for only the former type embodies the true principle of the arched lintel.<sup>115</sup>

On the basis of these numismatic depictions, Kadman attempted to demonstrate a remarkable thesis: "the ancient temple . . . assumed the architectonic form [with an arched lintel over the central intercolumniation] which formerly appeared in the Jewish synagogues and then in the Christian basilica . . . this metamorphosis, as becomes evident from the numismatic material, began in Palestine, the cradle of the Jewish and the Christian faiths."<sup>116</sup> Kadman's argument suffers from errors not only of commission<sup>117</sup> and interpretation<sup>118</sup> but notably from errors of

ton, 1917], pp. 12 ff.) and certain Syrian lead sarcophagi of a later period which display in relief tabernacles containing divine figures under arched lintels which continue the horizontal entablature (H. Stern, *Le calendrier de 354* [Paris, 1953], pp. 309 ff. and pl. 52, no. 2).

<sup>114</sup> See the temple illustrated by K. Lanckoroński, *Städte Pamphyliens und Pisidiens* 2 (Vienna, 1892), pl. 4. Funerary edifices with this type of lintel are also illustrated on p. 114, fig. 83 and by R. Heberdey and W. Wilberg, "Grabbauten von Termessos in Pisidien," *Jahreshefte. ÖstArchInst* 1900, pp. 198, fig. 71, 200, fig. 73. However, Termessus issued no coins depicting a temple with arched lintel. For photographs of the arched pediment of the restored "Marble Court" at Sardis see *BASOR* No. 203 (Oct. 1971), pp. 19–20.

<sup>115</sup> See Dinsmoor, *Architecture of Ancient Greece*, p. 284 and note 2. A type of funerary temple at Elaioussa Sebaste, with an arch set well below the entablature, avoids interaction of arch and lintel; see Machatschek, *Nekropolen*, pp. 92 ff. See also R. Martin's review of *Nekropolen: RevArch* 1970, p. 346.

<sup>116</sup> Kadman, *Israel Numismatic Bulletin* Nos. 3–4 (Aug.-Dec. 1962), pp. 69–80.

<sup>117</sup> In his table on p. 73 and on p. 76, fig. 9, Kadman includes Orthosia among the cities of Caria which issued coins depicting temples with arched lintels, although this town never minted coins depicting a temple of any type. Orthosia in Caria (opposite Nysa in the Maeander Valley) was here confused with Orthosia in Phoenicia, on the coast between Marathus and Tripolis. It was the latter city which struck coins under Elagabalus and Alexander Severus with a "temple of Astarte with four columns, pediment, arch over central space" (*BMCPHOENICIA*, p. 127, nos. 5–6 and pl. 16, no. 3; see also pl. 41 no. 18 and J. Rouvier, "Numismatique des villes de Phénicie," *JIAN* 1901, pl. Z', no. 21. See also notes 34 and 75 above concerning coins of Zeugma and Antioch in Syria.

<sup>118</sup> A type on coins of Neocaesarea in Pontus (Kadman, *Israel Numismatic Bulletin* Nos. 3–4 (Aug.-Dec. 1962), fig. 8 on p. 76) is said to "supply proof that the cella of an ancient temple was enlarged at a later date," for it is asserted that on this

omission: for despite a claim nearly to have attained completeness,<sup>119</sup> his tables—from which he deduced a Palestinian origin for the coin type in question—present numerous lacunae and thus afford a distorted picture of the evidence. For example, Kadman lists on p. 71 three cities (two of which are in Palestine) as the earliest to strike coins depicting temples with arched lintels, already under Hadrian; but to these must be added Aphrodisias in Caria (*SNG Fitzwilliam* Part VI 4682); to the cities listed by Kadman as striking such coins under Marcus Aurelius must be added Antioch ad Cragum (*SNGCop.: Lycaonia-Cilicia* 67: this city is omitted entirely from Kadman's tables); Philadelphia (*SNGvonAulock: Lydien* 3077); and Tabae (*NC* 1904, p. 304, no. 25, pl. 16, no. 10; L. and J. Robert, *La Carie* II, p. 142, type AW); to the cities enumerated under Commodus may be added Byblus (Rouvier, *JIAN* 1901, pl. A, no. 22).

In addition to such lacunae, which represent cities outside Palestine as striking such coins later than in fact is the case, Kadman's tables abound also in lacunae which mask the wide geographical distribution and numerous attestations of this motif far from the borders of Palestine. For example, absent from Kadman's tabulations are coins depicting temples with arched lintels struck by the cities<sup>120</sup> of Calchedon in Bithynia (Gordian III: *SNGvonAulock* 499); Metropolis (Septimius Severus: *SNGCop.* 910), Miletus (Balbinus: *SNGCop.:* 1021) and Samos (Julia

type "walls are visible, built between the columns or after them, and filling the entire intervening space." What these coins show is simply a conventional wall which naturally stood *behind* the columns which formed the facade; fig. 8 is an incomplete drawing of the type illustrated, for example, in *BMCPontus*, pl. 6, no. 4. A description more accurate than Kadman's is given in *BMC*, p. 33, no. 10. With regard to a type (Kadman p. 76, fig. 10) on coins of Abila, member of the Syrian Decapolis, Kadman unfortunately rejects (p. 77) the convincing interpretation set forth by Seyrig (see note 109 above).

<sup>119</sup> Kadman, *Israel Numismatic Bulletin* Nos. 3–4 (Aug.–Dec. 1962), p. 71.

<sup>120</sup> No attempt is made here to cite the earliest occurrence of the arched lintel in the issues of each city listed; furthermore, one example only is cited from each mint. Kadman cites no references to the publications of the coins listed in his tables, and the arched lintel is often attested on coins minted in reigns anterior to those which he mentions (e.g. for Magnesia ad Sipylum Kadman lists coins of Trebonianus Gallus and Volusian, but the arched lintel appears on coins of this city already under Philip: *SNGCop.: Lydia* 269).

Domna: *SNGvonAulock* 2307) in Ionia;<sup>121</sup> Dioshieron (Caracalla: here PLATE XII, 3) and Nysa (Elagabalus: *SNGCop.* 321)<sup>122</sup> in Lydia; Amorion (Julia Domna: *SNGCop.* 126), Ankyra (Philip: *SNGvonAulock* 3444), Metropolis (Trajan Decius: *SNGvonAulock: Nachträge* IV 8424), and Synnada (Gallienus: *SNGCop.* 733) in Phrygia; Conana (Salonina: *SNGvonAulock* 5074) in Pisidia; Orthosia in Phoenicia (see above note 117). This list of addenda is meant to be illustrative rather than exhaustive.

Comparison of the facts adduced here with the material cited by Kadman permits the conclusion that during the four reigns from Hadrian through Commodus coins depicting temples with arched lintels were issued by as many cities outside Palestine as within it. When this conclusion is combined with the demonstration that coin types cannot be treated as quasi-photographic records of the exact appearance of the buildings represented, it becomes apparent that the reasoning adduced in support of Kadman's thesis lacks foundation. Clearly the motif of the arched lintel was indeed common on the coins of many cities in Palestine, but it is numismatically attested in this region no earlier than in Asia Minor, and there exists no reason to believe that its increasing popularity in the latter area was accompanied by a radical transformation of the already standing monuments.

Much, perhaps too much, has been written on the symbolic significance of the arch.<sup>123</sup> One may refer, with reservations, to a generally neglected article by D. F. Brown and to the relevant sections in the work of E. Baldwin Smith.<sup>124</sup> Trell has attempted to demonstrate that the sym-

<sup>121</sup> For Ionia, Kadman (p. 73) mentions only "2 cities" which struck coins of this type, but he does not name them.

<sup>122</sup> For these coins of Nysa, see E. N. Lane, "A Re-Study of the God Men, Part III: Conclusion," *Berytus* 17 (1967-1968), p. 20, nos. 20-22, who cites coins depicting Mên in temples with a straight lintel under Marcus Aurelius, an arched lintel under Elagabalus and again a straight lintel under Philip.

<sup>123</sup> For the entrance to the agora at Priene, which constitutes, according to A. W. Lawrence, *Greek Architecture*, 2nd ed. (Baltimore, 1967), p. 263: "what may be the earliest Greek instance of an ornamental arch," see M. Schede, *Die Ruinen von Priene*, 2nd ed. (Berlin, 1964), p. 55, fig. 66. On the arched lintel in general see R. Vallois, *L'architecture hellénique et hellénistique à Délos* 1 (Paris, 1944), pp. 364 ff.

<sup>124</sup> D. F. Brown, "The Arcuated Lintel and its Symbolic Interpretation in Late

bolism of the windowed gables of European Gothic cathedrals derives from a type of pediment found on archaic Greek temples and that the motif, which appears in medieval art, of a figure holding the model of a shrine, was invented in Egypt during the Eighteenth Dynasty whence it was transmitted by Hittite art and Greek Imperial coins;<sup>125</sup> with these coins Trell compares a series issued by Ephesus which depicts the statue of Artemis wearing a crown<sup>126</sup> incorporating a temple or several temples identified as the neocorate temples of Ephesus.<sup>127</sup>

This identification, as it has been most recently formulated, entails several difficulties. Trell states that "the coins of Hadrian and Commodus show Artemis crowned with a single temple"<sup>128</sup> but during these reigns Ephesus was twice neocoros for temples of Vespasian (originally Domitian) and of Hadrian himself. "Later coins issued under Antoninus

Antique Art," *AJA* 1942, pp. 389–399. E. Baldwin Smith, *Architectural Symbolism of Imperial Rome and the Middle Ages* (Princeton, 1956), notably p. 118.

<sup>125</sup> B. Trell, *Essays . . . Lehmann*, p. 345. On such theories see the remarks in P. Lemerle's review of Smith, *Architectural Symbolism: RevÉtByz* 14 (1956), p. 291. Trell, *CIN.Atti* against which see the objections of Grierson and Schwabacher, *CIN.Atti*, pp. 552–553.

<sup>126</sup> This motif too is said to be derived from dynastic Egypt (the headdress of Hathor) on grounds which seem hardly convincing (Trell, *CIN.Atti*, p. 548). The crowns consisting of a city wall with turrets, frequently worn by Cybele and by the Tyches who personify various cities (see the article "Turrigera" by Keune in W. H. Roscher, *Ausführliches Lexikon der griechischen und römischen Mythologie* 5 [Leipzig, 1916–1924]), would seem to provide a closer parallel for the architecture on the crown of Artemis.

<sup>127</sup> This interpretation of the crown had already been suggested by F. Chapouthier, "La coiffe d'Artémis dans Éphèse trois fois néocore," *RevÉtAnciennes* 1938, pp. 125–132, with certain differences. Another explanation is found in W. Amelung, "Zwei ephesische Fragmente," *Jahreshefte. ÖstArchInst* 1909, p. 177. An equally curious explanation of Artemis' crown was advanced by C. T. Seltman in "The Wardrobe of Artemis," *NC* 1952, pp. 44–47.

<sup>128</sup> Trell, *CIN.Atti*, p. 543. See also the coins of these two emperors listed and illustrated by F. Imhoof-Blumer, "Beiträge zur Erklärung griechischer Münztypen," *Nomisma* 6 (1911) p. 11 and pl. 1, and (in addition to H. Thiersch, *Artemis Ephesia* 1 [Berlin, 1935], pls. 49–51) also the cistophori struck at Ephesus under Hadrian (Seltman, *NC* 1952 pl. 5, nos. 8–10). It is interesting that on one of these coins (Imhoof-Blumer, *Nomisma* 6 (1911), Pl. 1 no. 25, struck under Hadrian) "die beiden inneren Säulen bilden einen Bogen:" not evidence for a reconstruction of the temple depicted with an arched lintel, for as Imhoof-Blumer adds, "wegen Raummangels fehlt der Giebel."

Pius,<sup>129</sup> Commodus, Caracalla and Gordian seem<sup>130</sup> to show three separate temples making up the crown, though admittedly with less certainty:" but under the first two of these emperors Ephesus had still only two neocorates. It is thus apparent that the number of temples on the crown of Artemis often does not agree with the number of neocorates held by the city during the reigns in which the coins in question were minted;<sup>131</sup> furthermore on a statue of Artemis there exists a crown which "presents five temple facades and a gate in the city wall,"<sup>132</sup> but the city

<sup>129</sup> This emperor reigned before Commodus; his coins which show three separate temples cannot be described as "later" than coins of Commodus which depict only one temple.

<sup>130</sup> The triple division of the temple crown is clear on a coin of Philip II (Thiersch, *Artemis Ephesia*, no. 116, pl. 50, no. 40; Chapouthier, *RevÉtAnciennes* 1938, pl. 3, no. 8) and on issues of other emperors as well.

<sup>131</sup> Although Trell complains, *CIN.Atti*, p. 543, that "the inscriptional evidence for the neocorate at Ephesus is scant, confused and inconsistent," see the abundant bibliography cited by D. Magie in his discussion of the city's first two neocorates, *Roman Rule in Asia Minor* (Princeton, 1950), pp. 1432-1434; for the third and fourth neocorates see the additional works cited by L. Robert, "Sur des inscriptions d'Éphèse," *Revue de Philologie* 41 (1967), p. 45 note 2. The essential is to be found in the various studies of this topic by J. Keil. Trell wrongly interprets the only evidence she does cite here for the Ephesian neocorates, *Acts* 19.35. The words of the secretary to the assembly imply only that the city was Artemis' seat of worship and do not refer to an imperial neocorate (this was established by Keil and is generally accepted. See Magie, *Roman Rule*, p. 1433).

<sup>132</sup> Trell, "Architectura Numismatica Orientalis," *NC* 1970, p. 44, figs. 116, 117. One of the temples depicted on the sides of the crown is identified by Trell, *Cin.Atti*, p. 544, as the neocorate temple of Hadrian on the basis of the dentils said to be indicated on its cornice, despite the fact that F. Miltner, "Die neuen Artemisstatuen aus Ephesos," *Anatolia* 3 (1958), p. 27, described the statue as "eine Schöpfung domitianischer Zeit oder wenigstens des ausgehenden 1. Jhs. n. Chr." In this passage Trell seems to accept Miltner's architectural identification of the neocorate temple of Hadrian in *Jahreshefte. ÖstArchInst* 1959, Beibl. col. 266, although all of the temple facades on Artemis' crown have straight lintels as opposed to the arched lintel of the excavated building. Note that the crown published by Chapouthier, *RevÉtAnciennes* 1938, pp. 125-132, has only three temples, for rather than depicting separate buildings on its sides, it shows the lateral colonnades of two temples whose facades appear on its front. Chapouthier suggested that these three temples, which as we have seen are represented also on certain coins, are the two neocorate temples and the temple of Artemis (which was eventually designated by Caracalla as a third neocorate temple itself).

was never more than four times neocoros. This rigid equation of the number of temples on Artemis' crown and the number of Ephesian neocorates must therefore be rejected.

In general it is evident that archaeological evidence frequently fails to confirm numismatic testimony with regard to architectural details. Numismatic representations must therefore be treated in this respect with great caution, for clearly such depictions attain their full value as evidence only when they can be compared with the results of actual excavation of the monuments which they portray.



## THE CHRONOLOGY AND SIGNIFICANCE OF THE M. AGRIPPA ASSES<sup>1</sup>

(PLATES XV-XVII)

JOHN NICOLS

Perhaps no Julio-Claudian coinage has been the subject of more controversy<sup>2</sup> concerning its date and significance than the large series of *asses* reading:

*Obv.* : M AGRIPPA L F COS III. Bust of Agrippa with rostral crown, l.

*Rev.* : S C l. and r. of Neptune holding dolphin in right hand and trident in l. (PLATE XV, 2-4 *ANS*).<sup>3</sup>

The most pressing problem has been to establish the terminal dates of the series, for any discussion of historical problems hinges on which dates are assigned. This paper therefore concerns two problems: first, the genesis and ultimate fate of the series, and second, the significance of the coins, the great number of which suggests something more than a commemorative issue.

### VARIETIES OF STYLE AND THE "PROVINCIAL" MINT

Two major groups of Agrippa *asses* have been postulated on the basis of stylistic analysis.<sup>4</sup> Grant has labeled the groups "metropolitan" and

<sup>1</sup> I should like to thank J. P. C. Kent and T. V. Buttrey whose advice and criticisms have greatly improved this paper. I would also like to thank Margaret Thompson and the staff of the *ANS* for their encouragement and assistance. Most of the basic work on the paper was done in New York in the summer of 1970 and supported by the Society's stipend.

<sup>2</sup> See, most recently, S. Jameson, "The Date of the Asses of M. Agrippa," *NC* 1966, pp. 95-124, who conveniently sums up the recent work on p. 95, notes 2-4. See also H. Chantraine, *Novaesium III* (Limes Forschungen Bd. 8), (Berlin, 1969).

<sup>3</sup> *RIC* Tiberius, no. 32 = *BMCRE* Tiberius, nos. 161 ff.

<sup>4</sup> Details of the stylistic analysis can be found in Jameson, "Date of Asses," pp. 96 ff.



"provincial," believing that the stylistic variations are best explained by assuming the existence of two distinct mints, one Roman and the other provincial.<sup>5</sup> On the basis of historical and iconographical considerations, he and Chantraine have dated both groups to the reign of Gaius.<sup>6</sup> Kraay divides the Agrippa asses into two stylistic groups which he calls *rechtwinkligen* and *schrägen* on the basis of the set of Agrippa's head and the line of the eyebrow. He suggests that the rectangular style is of Roman origin (PLATE XV, 3), and the sloping style (PLATE XV, 4) of provincial. As to the date of the first issue, Kraay believes that the Agrippa as was first minted late in the reign of Tiberius and continued to be minted perhaps as late as Nero.<sup>7</sup>

Jameson, who rejects the two mint theory,<sup>8</sup> divides the coins into three distinct stylistic groups. She labels Kraay's sloping style Group C (PLATE XV, 4) and dates it to the mid-Tiberian period (A.D. 22-28).<sup>9</sup> The rectangular group, on the other hand, she has divided into two parts, Groups A (PLATE XV, 3) and B (PLATE XV, 2), which she dates to the reigns of Gaius and Claudius respectively. These groups are distinguished from one another by the shape of the eye and especially by the lettering of the legend.<sup>10</sup>

It may well be reasonable to accept two or even three stylistic groups of Agrippa asses. Problems arise, however, when one uses these divisions to demonstrate the existence of that still elusive "provincial" mint. This is not the proper place for an extensive discussion of this important and controversial question, but a few words deserve to be said about the problem in relation to the Agrippa as.

Granted that the *rechtwinkligen*<sup>11</sup> asses represent the best of the Roman production, to which mint may the *schrägen* asses be assigned? Recent

<sup>5</sup> M. Grant, "The Pattern of Official Coinage," *Essays . . . Mattingly* (Oxford, 1956), p. 108.

<sup>6</sup> M. Grant, "The Colonial Mints of Gaius," *NC* 1948, p. 125; Chantraine, *Novaesium III*, p. 13.

<sup>7</sup> C. M. Kraay, *Die Münzfunde von Vindonissa* (Basel, 1962), p. 35.

<sup>8</sup> Jameson, "Date of Asses," p. 124.

<sup>9</sup> Jameson, "Date of Asses," p. 118.

<sup>10</sup> Jameson, "Date of Asses," pp. 96, 111 ff. These characteristics will be discussed below, pp. 77 ff.

<sup>11</sup> Kraay's terminology has been adopted here because it assumes the least.

studies have generally come to the point of view that some kind of official mint existed in the provinces in the Julio-Claudian era.<sup>12</sup> Whether this mint produced its own dies, inspired by Roman types, or struck with dies selectively sent to it cannot be exactly determined. Alternatively, it remains possible that the provincial mint is a numismatic chimera and that the incidence of particular styles found in distinct geographical areas<sup>13</sup> reflects a policy of selective distribution.

To complicate the problem further, there were also a number of unofficial but seemingly tolerated provincial workshops which produced copies of Roman coins with varying ability. Sutherland has noted that these mints were capable of producing coins "which show all the detail, and much of the excellence of fabric, possessed by their prototype."<sup>14</sup> Certainly some of the *schrägen asses* fit into this classification.<sup>15</sup>

Whether the remainder of the *schrägen* group were produced at Rome or at some official (though most probably temporary) mint in the provinces remains to be resolved.

Regardless of where the Agrippa *asses* were produced, one may conclude that the *rechtwinkligen* style seems to have been intended for circulation in Rome and Italy and the *schrägen* style for circulation in the provinces. A third group, consisting of imitations of various excellence, circulated with the other groups but cannot always be distinguished from the official *schrägen asses*.

<sup>12</sup> See notes 5–7 above.

<sup>13</sup> M. Grant notes that of the many Agrippa *asses* found in the Tiber, "... by far the greater part are of the orthodox variety, whereas the contrary is the case in Gaul." *The Six Main Aes Coinages of Augustus* (Edinburgh, 1953), p. 143, n. 6. Kraay reports that of the ninety well-preserved Agrippa *asses* found at Vindonissa about two-thirds belonged to the unorthodox type: *Vindonissa*, p. 35.

<sup>14</sup> C. H. V. Sutherland, *Romano-British Imitations of the Bronze Coins of Claudius I*, *ANSNM* 65 (New York, 1935), p. 14; compare p. 3.

<sup>15</sup> See Kraay, *Vindonissa*, at least coins 3448–3464 (= 17 of the 197 Agrippas of all sorts found). How many of the remaining 180 coins fit into this group cannot be determined.

THE ISSUE DATES<sup>16</sup>*The Case for a Tiberian Date.*

A late Tiberian date for the first Agrippa *asses* has had many defenders, beginning seriously with Mattingly and Sydenham,<sup>17</sup> followed more recently by K  thmann<sup>18</sup> and Kraay.<sup>19</sup> In 1966, Jameson argued that if the series began under Tiberius, it is much more likely that it began in the middle years of his reign (22–28) rather than at the end. She has also presented some independent evidence to support this conclusion. This writer finds the evidence for both cases to be questionable. The discussion of the two proposals will proceed in chronological order, beginning with Jameson's case for a mid-Tiberian date.

Mention has already been made of the stylistic analysis used in determining the three basic groups of Agrippa *asses*. Concerning the stylistic relationship of her Group C *asses* (22–28) to the dated mid-Tiberian *asses*, Jameson has made some interesting observations about the similarities in the depiction of the eye, chin, nose and throat. Nevertheless, she admits:

Various types of *aes* were minted under Tiberius, but as a series, none of them shows extremely marked stylistic connections with the Agrippa Group C (mid-Tiberian).<sup>20</sup>

Although some similarity cannot be denied, it is clear that the evidence of style is not, in itself, conclusive for dating Jameson's Group C to the mid-Tiberian period.

Jameson has noted that generally the *asses* of Group C are more worn than the coins of Gaius. She also recognizes, however, that the evidence is somewhat unclear, for she notes that one Agrippa Group C *as* has been found at Worcester in a context with nine Claudian imitations,

<sup>16</sup> Mattingly reported an interesting early coin of Agrippa which he dated to 37 B.C. This coin exhibits many of the features of the later issue. See "A Unique Coin of Agrippa," NC 1934, pp. 48–50 and PLATE XV, 1 here.

<sup>17</sup> RIC, vol. 1, p. 101; BMCRE, vol. 1, p. cxl.

<sup>18</sup> C. K  thmann, "Die Pr  gezeit der Agrippa-Asse," SM, Vol. 4, no. 16 (Aug. 1954), p. 73.

<sup>19</sup> Kraay, *Vindonissa*, p. 35.

<sup>20</sup> Jameson, "Date of Asses," p. 106.

none of which "appeared to be appreciably less worn than the Agrippa piece."<sup>21</sup> One must, then, conclude that the evidence of wear is somewhat ambiguous and inconclusive for a mid-Tiberian date.

The hybrids of Agrippa coins have also been used as evidence for a mid-Tiberian date. The following are the relevant ones for this period and all are of doubtful authenticity:

1. *Obv.* : M AGRIPPA L F COS III.  
*Rev.* : DIVVS AVGVSTVS PATER.<sup>22</sup>
2. *Obv.* : Agrippa.  
*Rev.* : TI CAES DIVI AVG F AVGVST P M TR POT XXIII.<sup>23</sup>
3. *Obv.* : Agrippa.  
*Rev.* : TI CAES DIVI AVG F AVGVST P M TR POT XXIII.<sup>24</sup>
4. *Obv.* : Agrippa.  
*Rev.* : SC PROVIDEN (T is off-flan).<sup>25</sup>

Any discussion of hybrids is limited by the lack of research on the nature of these coins, some of which have been religiously cited as existing although they have not been seen for several hundred years.<sup>26</sup> This writer has examined as many of the Agrippa hybrids as possible and has consistently found that they are imitations. Consequently, it is only with a great deal of care that hybrids can be used to date other issues.

The first hybrid, apparently unique, is a combination of two obverses (Agrippa plus the DIVVS AVGVSTVS PATER, *RIC* p. 95). Although the coin is listed and shown with a line drawing by Cohen, he had, it seems, not seen it.<sup>27</sup> Its present whereabouts is unknown. The second hybrid

<sup>21</sup> Jameson, "Date of Asses," p. 108, based on evidence from hoards found at Colchester and Worcester. See C. H. V. Sutherland, "A Late Julio-Claudian *Aes* Hoard from Worcester," *NC* 1963, p. 57.

<sup>22</sup> H. Cohen, *Médailles impériales* 2nd ed. 1 (Paris/London, 1880), p. 178, no. 4.

<sup>23</sup> Cohen, *Médailles* 1, p. 176, no. 4.

<sup>24</sup> Cohen, *Médailles* 1, p. 176, no. 5.

<sup>25</sup> Cohen, *Médailles* 1, p. 175, no. 2. See PLATE XVI, 8 (Paris) here. Another example of this hybrid was found at Condé-sur-Aisne, but it is not from the same die and is also an imitation. See J.-B. Giard, "Le pèlerinage gallo-romain de Cor-dé-sur-Aisne et ses monnaies," *RN* 1968, pp. 112-113, no. 1419 (= PLATE XVII, 8 here).

<sup>26</sup> See note 28 below.

<sup>27</sup> Cohen says, "Médaille hybride ayant appartenu autrefois à M. Gonzales," *Médailles* 1, p. 178, no. 4. I know of no genuine double obverse hybrids of this period.

mentioned above is surely a modern misreading of the third.<sup>28</sup> Whatever the case, the same criticisms apply to both. The abbreviation CAES for CAESAR is unusual for the reign of Tiberius, appearing only on the coins of Caesarea in Cappadocia and, in that case, on silver drachms.<sup>29</sup>

The fourth hybrid of an Agrippa obverse with a mid-Tiberian reverse is the combination of the altar and the word PROVIDENT(IA). Sutherland has convincingly demonstrated that this reverse was first struck in A.D. 22/3.<sup>30</sup> This coin is of poor quality (see PLATE XVI, 8 [Paris]) and is an imitation. First, on all regular issues, the L (of Lucii) follows immediately after the last A of AGRIPPA (compare PLATE XVI, 8 with PLATE XV, 3). In this case, however, the distance is at least the width of one letter. Second, and more questionable, is the size of this coin, .95 in. (2.30 cm.). This diameter is significantly smaller than the diameter of the *asses* of Tiberius, Gaius and Claudius in the collection of the ANS:

	<i>Av. Diameter</i>	<i>Range</i>
Tiberius	1.13 in.	1.00–1.30 in.
Gaius	1.14	1.10–1.35
Claudius	1.14	1.00–1.20
Agrippa	1.14	1.10–1.20

On the other hand, its diameter is consistent with the other imitations shown on PLATE XVII, 6–9 (6,7 [Vindonissa 4252, 4251]; 8 [BM]; 9 [RN 1969, no. 1419]).

<sup>28</sup> The publication history of these two (possibly one) types is confusing. Cohen, *Médailles* 1, p. 176 no. 4, cites Riccio, *Le monete delle antiche famiglie di Roma*, 2nd ed. (Naples, 1843), p. 239, no. 12 as his evidence for TR POT XXIII. Riccio, who apparently had not seen the coin, cites J. Eckhel, *Doctrina numorum veterum* 6 (Vienna, 1796), p. 165 as his source. Eckhel, however, does not claim to have seen the coin either. Moreover, he reads TR POT XXIII, not XXIIII. This coin has evidently not been seen in nearly two hundred years.

<sup>29</sup> *BMCRE* Tiberius, no. 171. This abbreviation is, however, common on the coins of the Flavian era.

<sup>30</sup> C. H. V. Sutherland, "Divus Augustus Pater," *NC* 1941, p. 111. Compare PLATE XVI, 8 with the normal PROVIDENT shown on PLATE XVI, 9 (ANS). The Paris collection also has an unusual Agrippa overstruck on the Providentia altar see PLATE XVI, 10.

There are, moreover, other considerations which make a Tiberian date unlikely for the Agrippa asses. If the Agrippa *as* belongs to the mid-Tiberian period, then it should reveal the same characteristics as the coins dated for other reasons to that period. There are three relevant tests for this hypothesis: incidence of countermarks, halved coins and evidence of the die axes (it is assumed here that no deliberate effort, official or unofficial, would have been made in the Tiberian period to avoid countermarking or splitting Agrippa Asses).<sup>31</sup>

Mid-Tiberian countermarks have been found on the following Tiberian varieties: *RIC* 18 (two examples),<sup>32</sup> *RIC* 26 (three examples),<sup>33</sup> and *RIC* p. 96 no. 6 (two examples).<sup>34</sup> The large number of Agrippa asses found at Vindonissa (see Table II) and the fact that the only mid-Tiberian issue of comparable size (*RIC* p. 95 no. 6 with  $563 + \frac{18}{2}$ ) has these

countermarks while the Agrippa issue does not must be taken as fairly strong, although not conclusive, evidence against a mid-Tiberian date for the Agrippa asses.

A second feature of mid-Tiberian issues found at Vindonissa is the phenomenon of halved coinage. Halved types exist of the following Tiberian issues: *RIC* 18 (one example),<sup>35</sup> *RIC* p. 95.2 (three examples),<sup>36</sup> and *RIC* p. 95 no. 6 (eighteen examples).<sup>37</sup> Considering the large numbers of Agrippa asses found at Vindonissa, the fact that none is halved is

<sup>31</sup> See T. V. Buttrey, Jr., "Observations on the Behavior of Tiberian Counter-stamps," *ANSMN* 16 (1970), p. 57. According to Buttrey, the splitting began in the late Tiberian period and does not appear to have been selectively applied: "Halved Coins, the Augustan Reform and Horace I, 3," *AJA* 1972, pp. 31 ff.

<sup>32</sup> C. M. Kraay, "The Behavior of Early Imperial Countermarks," *Essays . . . Mattingly* (Oxford, 1956), p. 122.

<sup>33</sup> Kraay, *Vindonissa*, p. 104; Chantraine, *Novaesium* III, p. 27. See also PLATE XVI, 5 (ANS). PLATE XVI, 4, 5 illustrates the standard mid-Tiberian countermarks and the standard Claudian countermark 6, 7 *TIIV*. This is the most common countermark on the Agrippa asses; no countermarks earlier than Claudius have been found on them (see Jameson, "Date of Asses," p. 101 for a complete list).

<sup>34</sup> Kraay, "Behavior of Countermarks," p. 121.

<sup>35</sup> Kraay, *Vindonissa*, p. 103.

<sup>36</sup> Kraay, *Vindonissa*, p. 105.

<sup>37</sup> Kraay, *Vindonissa*, p. 105. In contrast, no halves were found of coins dateable to the last half of Tiberius' reign and only one example from the principate of Galus. It is nevertheless true that these figures are small.

again fairly strong evidence against assigning a mid-Tiberian date to the Agrippa *as*.

Sutherland has noted that in the mid-Tiberian period a die axis relationship of  $\uparrow \downarrow$  predominates, but at the end of Tiberius' principate, a die axis relationship of  $\uparrow \uparrow$  is more common.<sup>38</sup> An analysis of the coinage of the mid-Tiberian period reveals that Sutherland's case is a sound one, but what is distinctive is that every issue of this period has at least some  $\uparrow \uparrow$  die axes, whereas the Agrippa *asses* have none at all.<sup>39</sup> This fact alone must be considered as the major piece of evidence against a mid-Tiberian date.

TABLE I

Die Axes of the "Agrippa" Type and Other Common Tiberian Aes

Die Axis	"Agrippa" RIC Tib., 32	DIVVS AVGVSTVS PATER RIC p. 95 no. 6	RIC Tib., 24, 26, 28
$\uparrow \downarrow$	78	56	34
$\uparrow \uparrow$	0	6	18

From the Hunter, ANS, BM and Ashmolean collections

The case for dating the first issue of Agrippa *asses* to the mid-Tiberian period is, then, quite questionable. Unless significant numbers of halved Agrippas, mid-Tiberian countermarks, or especially  $\uparrow \uparrow$  die axes are found, the mid-Tiberian date must be rejected.

The evidence supporting a late Tiberian date is also doubtful. First, a comparison of the flans of the late Tiberian coins and the Agrippa *asses* provides some evidence against this date. In general, the flans of the late Tiberian dated *asses* appear to be somewhat irregular in shape and smaller than the *asses* of Agrippa (see Pl. XVII, 1-4 [all ANS]).<sup>40</sup> On the whole, however, this evidence is not conclusive for rejecting a late Tiberian date.

<sup>38</sup> Sutherland, "Divus Augustus," p. 97.

<sup>39</sup> See Table II. This fact was first noted by A. Robertson, *Roman Imperial Coins in the Hunter Coin Cabinet* 1 (London/Glasgow/New York, 1962), p. lxxv.

<sup>40</sup> PLATE XVII, 1 is mid-Tiberian, 2 is late-Tiberian, 3 is Galan, 4 is Claudian, 5 is the reverse of an Agrippa *as*.

The evidence of the die axes is more decisive. Sutherland has pointed out that at the end of Tiberius' reign a ↑ ↑ die axis predominated on the bronze coinage.<sup>41</sup> As mentioned before, not one legitimate Agrippa *as* has such a die axis<sup>42</sup> and consequently it is highly unlikely that the Agrippa *asses* were minted in this period.

There are two hybrids of Agrippa *asses* that seem to date to this period and would provide some evidence for a late Tiberian date. These coins read:

1. *Obv.* : M AGRIPPA L F COS III  
*Rev.* : PONTIF MAXIM TRIBVN POTEST XXXVII SC<sup>43</sup>
2. *Obv.* : M AGRIPPA L F COS III  
*Rev.* : PONTIF MAX TRIBVNIC POTEST XXXVIII SC<sup>44</sup>

A careful examination of these coins reveals that neither is genuine. Basically, the legends on these coins cannot logically be connected. The titles on the reverse cannot refer to Agrippa and, in fact, are standard on the *asses* of the late Tiberian period (see PLATE XVII, 2 and compare it to the hybrid PLATE XVII, 8). Theoretically, this should be a case of "the mint getting its wires crossed," and consequently proof that the Agrippa *as* was being minted at this time. Several characteristics of this first coin are, however, suspicious. First, although this is not conclusive, its weight, 7.32 gm., is quite low for its state of preservation.<sup>45</sup> Second, there is the problem of the rough portrait of Agrippa, which is more similar to some imitations found at Vindonissa (PLATE XVII, 6, 7)<sup>46</sup> and at Condé-sur-Aisne (PLATE XVII, 9)<sup>47</sup> than to that depicted on the genuine Agrippa *asses*. Third, and most serious, are the irregularities in the lettering of the reverse legend: 1) the S in POTEST is es-

<sup>41</sup> Sutherland, "Divus Augustus," p. 111.

<sup>42</sup> See Table I.

<sup>43</sup> *BMCRE* Tiberius, no. 170 and PLATE XVII, 8 here.

<sup>44</sup> Cohen, *Médailles* 1, p. 175 no. 1. Jameson, "Date of Asses," p. 107, reads MAXIM in contrast to Cohen's MAX.

<sup>45</sup> It would fit into the lower 15 percent of the Agrippa *asses* found at Condé-sur-Aisne. See Giard, "Condé-sur-Aisne," *RN* 1968, p. 112. It should be noted, however, that despite the low weight, the coin is quite well preserved in contrast to the other coins of similar weight.

<sup>46</sup> Kraay, *Vindonissa*, pl. 6, nos. 4252, 4251.

<sup>47</sup> Giard, "Condé-sur-Aisne," *RN* 1968, pl. 10, no. 1419.



pecially irregular ; 2) the reverse legend begins about one and one-half letter spaces to the left of the axis formed by the caduceus. On genuine coins the P in PONTIF, which begins the legend, is always centered directly on this axis.<sup>48</sup> Whatever the case, it seems best to agree with Giard that this coin, and the other hybrids, bear witness “. . . du désordre qui devait regner dans les ateliers clandestins.”<sup>49</sup>

The existence of the second hybrid dated to this period is doubtful, and even if it should exist, it would seem to be an imitation. Cohen says that this coin is in the British Museum, but it is not listed in the relevant catalogue and seems to be a mistaken duplication of the coin cited above. There are, moreover, other problems with its authenticity: first, TRIBVNIC is not the standard abbreviation on the coins of Tiberius, and second, the Roman numeral for thirty-eight is usually written XXXIIX<sup>50</sup> on the *aes* of Tiberius, not XXXVIII. Consequently, if the coin does exist, it is probably an imitation.

One last argument remains to be considered. There was one mint outside Rome, Colonia Caesaraugusta (modern Saragossa) in Spain, which did issue Agrippa *asses* and several other Caligulan types in a datable context. This colonial issue has been used by Kùthmann and in a stronger case by Jameson, to demonstrate a Tiberian date for the Agrippa series.<sup>51</sup> The two groups of *duoviri* in question are Scipio and Montanus and Titullus and Montanus. The obverses struck by these moneyers are :

Scipio and Montanus<sup>52</sup>

1. DIVVS AVGVSTVS PATER (PLATE XV, 8)
2. M.AGRIPPA L F COS III (PLATE XV, 10)

<sup>48</sup> Compare it to M. Grant, *Roman Imperial Money* (London/New York, 1954), pl. 8, no. 5 or here to PLATE XVII, 2.

<sup>49</sup> Giard, "Condé-sur-Aisne," p. 87.

<sup>50</sup> *BMCRE* Tiberius, nos. 125–140. There is a dupondius of uncertain mintage which reads TRIB POT XXXVIII listed in *BMCRE* Tiberius, p. 145\* and photographed by M. Grant for *Roman Anniversary Issues* (Cambridge, 1950), pl. 2, no. 4. As this legend reads "outwardly," I do not believe it can be of Roman origin.

<sup>51</sup> Kùthmann, "Prägezeit der Agrippa-Asse," p. 74; Jameson, "Date of Asses," p. 103.

<sup>52</sup> A. Vives y Escudero, *La Moneda hispanica* 4 (Madrid, 1926), p. 84, nos. 70–77. The reverses have the names of the moneyers and are not included, as they are

3. GERMANICVS CAESAR TI AVG F DIVI AVG N (PLATE XVI, 2 ANS)
4. GERMANICVS CAESAR C CAESARIS PATER
5. AGRIPPINA M F MAT C CAESARIS AVGVSTI (PLATE XV, 9)
6. C CAESAR AVG GERMANICVS IMP
7. C CAESAR AVG GERMANICVS IMP PATER PATRIAE

Titullus and Montanus<sup>53</sup>

1. M AGRIPPA L F COS III
2. AGRIPPINA M F MAT C CAESARIS AVGVSTI
3. C CAESAR AVG GERMANICVS IMP PATER PATRIAE
4. DIVVS AVGVSTVS PATER

There can be no doubt that these two groups of *duoviri* date to the years of Caligula. That is proven by Scipio and Montanus No. 7 and Titullus and Montanus No. 3. Jameson dates these two groups to 37–38, with the decease or resignation of Scipio accounting for the apparently iterated tenure of Montanus as *duovir*.<sup>54</sup> She then argues that the Agrippa *as* must already have been in circulation under Tiberius. She first observes that these *duoviri* were not adverse to following Tiberian originals in the selection of types to be copied.<sup>55</sup> This is readily confirmed by their use of the DIVVS AVGVSTVS PATER motif of Tiberius.

Having established the possibility that these *duoviri* used Tiberian types, she then argues that,

With the exception of the Agrippina sestertii . . . none of the coins of Gaius produced by these moneyers bears a legend which can be exactly paralleled at Rome . . . which suggests that in-

irrelevant to this study. The Spanish Augustus, Agrippina and Agrippa types are illustrated on PLATE XV, 8–10, where they may be compared with the Roman types, 1–3. The Germanicus type, PLATE XVI, 2 is, because of its apparent uniqueness, of questionable authenticity. Nevertheless, it compares favorably with Roman types (*BMCRE* Gaius, nos. 49, 60, see PLATE XVI, 1 and 3 respectively).

<sup>53</sup> Vives, *Moneda hispanica* 4, p. 84, nos. 66–69.

<sup>54</sup> Jameson, "Date of Asses," p. 103. Whether or not Scipio died in office as Kùthmann ("Prägezeit der Agrippa-Asse," p. 74) and Jameson ("Date of Asses," p. 103) believe, is debatable. It is true that Montanus does not add ITER to his name, but it is not known if it is the same Montanus. One might also expect that with the death of Scipio, Montanus' name would thereafter precede Titullus', which is not the case.

<sup>55</sup> Jameson, "Date of Asses," p. 105.

sufficient time had elapsed for much of the specifically Roman *aes* to circulate and be used as a pattern.<sup>56</sup>

Consequently, she implies that, as the Agrippa is an *exact* copy of the Roman original, it must have been in circulation under Tiberius. This hypothesis she feels is confirmed “. . . by the fact that the Agrippa of the Spanish coin bears a striking resemblance to the old Tiberius.”<sup>57</sup>

There are several problems with these arguments. First, this writer is not convinced of the “striking resemblance” of the Spanish Agrippa to the old Tiberius (compare PLATE XV, 10 here to *BMCRE*, Vol. I, pl. 25, nos. 1, 8). Second, demonstrating the possibility that the Spanish moneyers duplicated Tiberian types is hardly decisive evidence for the alleged circulation of Agrippa *asses* under Tiberius. Finally, the validity of Jameson’s date of July 37–July 38 for these *duoviri* is questionable. It is more likely that their tenure of office fell sometime after March 39, which would allow sufficient time for the Roman *aes* of Gaius to have reached Spain.

In this last instance, Jameson has been too quick to make an exception of the “Agrippina sestertii” of Caesaraugusta. In fact, the portrait is clearly the same and the legend reads the same as the Roman original minted under Gaius (compare PLATE XV [ANS] 6 and 9).<sup>58</sup> The only difference is that the legend reads “outside” (in a manner typical of the coins of Lugdunum and the provincial mints) instead of “inside” (as most Roman originals read). If there was enough time for the Agrippina sestertius to circulate to Spain, there was certainly also enough time for the Agrippa *as* to arrive.<sup>59</sup>

A few final words deserve to be said on the order of these *duoviri*. It has been argued that Scipio and Montanus preceded Titullus and Montanus and a third group of *duoviri*, Licinianus and Germanus, who also date to the reign of Gaius.<sup>60</sup> Hill, however, prefers to place Licini-

<sup>56</sup> Jameson, “Date of Asses,” p. 104.

<sup>57</sup> Jameson, “Date of Asses,” p. 106.

<sup>58</sup> The Roman original is *RIC* Gaius, no. 42.

<sup>59</sup> The details of this coinage are discussed by W. Trillmich in an article, “Zur Münzprägung des Caligula von CCA [Zaragosa],” *MDAI (Madrid)* 1973. I would like to thank Dr. Trillmich for his valuable suggestions.

<sup>60</sup> Jameson, “Date of Asses,” p. 103 and Kùthmann, “Prägezeit der Agrippa-Asse,” p. 74. This precedence is demonstrated by the progressive deepening and lengthening of a crack in a die used by both groups.

anus and Germanus before Scipio and Montanus and the evidence favors his chronology.<sup>61</sup>

All three groups issued coins with the basic legend: C CAESAR AVG GERMANICVS IMP;<sup>62</sup> but as both Scipio and Montanus and Titullus and Montanus have PATER PATRIAE attached to that legend, whereas Licinianus and Germanus do not, we may well believe that the latter held office before the former. Licinianus and Germanus, then, probably held office during at least a part of the period between Gaius' elevation and his belated acceptance of the title.<sup>63</sup> This gives approximate dates of 37/8 for Licinianus and Germanus and 39 for Scipio and Montanus. Whether Titullus and Montanus fit into 39 or enjoyed their own year in 40 cannot be determined with any certainty.<sup>64</sup>

As for the Agrippa asses themselves, the evidence stands decisively against a Tiberian date, middle or late.

#### *The Case for a Gaian Date*<sup>65</sup>

There is no reason to doubt that the Agrippa as was minted by Gaius. In terms of style and fabric the Gaian bronze is quite close to at least one group of Agrippa asses (Jameson's Group A and Kraay's *recht-winkligen*). There is, moreover, strong and objective evidence for this conclusion.

The British Museum and the Hunter Cabinet do not list a single ↑↑ die axis on the bronze of Gaius, which is perfectly consistent with the die axes of the Agrippa asses noted above (Table II).

<sup>61</sup> G. F. Hill, *Notes on the Ancient Coinage of Hispania Citerior* (ANSNM 50) (New York, 1931), pp. 94 ff.

<sup>62</sup> Vives, *Moneda Hispanica* 4, p. 85, no. 78.

<sup>63</sup> The duration is not known. See Dio 59. 3.2. J. P. V. D. Balsdon, *The Emperor Gaius* (Oxford, 1934), p. 27, argues that Gaius did not assume the title "... until the following year."

<sup>64</sup> It is equally possible that a fourth group of non-striking *duoviri* could fit in between Licinianus and Germanus and Scipio and Montanus.

<sup>65</sup> That the Agrippa asses were first minted under Gaius has been defended by many, including D. W. MacDowall, "Early Aes from Augers-en-Brie," *NC* 1967, p. 47; Chantraine, *Novaesium III*, p. 13; and Giard, "Condé-sur-Aisne," *RN* 1968, pp. 76 ff.

There is also the evidence of the Spanish moneyers of Caesaraugusta, discussed above, who clearly minted the *asses* of M. Agrippa in conjunction with other *aes* from Gaius' Roman mint. We must then conclude that Gaius issued the first M. Agrippa *asses*, celebrating his grandfather, in conjunction with other family types commemorating his brothers and sisters, father, mother and great-grandfather.

### *The Case for a Claudian Date*

In general, though the evidence stands against any major issue, there are some indications that the Agrippa *as* continued to be minted under Claudius.

There are unfortunately very few conclusive tests that can be applied to the question of continuity after Gaius' death. Claudian coins were minted with the same  $\uparrow \downarrow$  die axis that is characteristic of the coins of Gaius. Countermarks are also inconclusive, as those of Claudius appear not only on the coins of Gaius and Agrippa, but also on his own. Until recently, then, the discussion has tended to center on the evidence of style and distribution.

Most recently, Jameson has argued for a Claudian date. In general, she finds:

The Claudian *aes*, . . . fine though it may be in other respects, does not present as clear and uncluttered an appearance as the bronze of Gaius. The head is not always quite so well centered, and frequently a space exists between it and the legend which is greater on one side than on the other. This is also true to some extent of the Agrippa group (b) *Asses*.<sup>66</sup>

More specifically, she notes on the obverse of the Agrippa *as* a similarity in the representation of the word COS on her Group B coins and the coins of Claudius, especially *BMCRE* 174 (compare *PLATE XV*, 2 with *BMCRE* Vol. I, pl. 35, no. 13). On both of these groups the S is less well-shaped and the spacing of the letters is not equidistant. There is also the evi-

<sup>66</sup> Jameson, "Date of *Asses*," pp. 112 ff. See her pl. 10, nos. 1-6. This analysis is basically the same as that proposed by H. Willers, *Geschichte der römischen Kupferprägung* (Leipzig/Berlin, 1909), p. 205 and accepted by Chantraine, *Novaesium III*, p. 13.

dence of the Agrippa asses on which the portrait of Agrippa has specifically "Claudian" or "Neronian" features (PLATE XVII, 10 = "Tiberius" [*Vindonissa* 3450]; 11 = "Claudius;" [*Vindonissa* 3449] 12 and 13 = "Nero" [*Vindonissa* 3455, 3456]).

On the reverse Jameson finds similarities between the SC of some Group B coins and the Claudian "Minerva SC" group (*BMCRE* 149ff). She notes also the elongation of the legs on Group B asses and on some Claudian issues with standing figures (*BMCRE*, Vol. I, pl. 35, nos. 2, 8).

Some of these observations, especially on the similarities in lettering, are very acute. Nevertheless, it should be noted that they apply to only *some* of Jameson's quite varied group B.<sup>67</sup> The "Claudian" and "Neronian" portraits, moreover, should not be considered part of the official coinage.

It is also tempting to defend a Claudian date on the assumption that the outstandingly large number of Agrippa asses is not really "intelligible" if restricted to the reign of Gaius.<sup>68</sup> However, as nothing is known about the maximum production facilities of the Roman mint, one cannot argue that an unusually large issue took an unusually long time to be produced.<sup>69</sup>

The critical evidence then for a Claudian date is an Agrippa *as* now found in the National Museum in Dublin and recently discussed by MacDowall.<sup>70</sup> He observes that this coin was countermarked CAC and then subsequently restruck with the Agrippa type. There can be no doubt about the order of events.

This countermark CAC, over which the Agrippa *as* has been restruck, is comparatively rare but appears most commonly on the coins of Gaius.<sup>71</sup> As there is no known example of a Gaian countermark, MacDow-

<sup>67</sup> Jameson, "Date of Asses," pp. 96, 112 ff. e.g.; Jameson's prime example of a Group B *as* (her pl. 1, no. 6) has a distinctly Gaian SC.

<sup>68</sup> Jameson, "Date of Asses," p. 114.

<sup>69</sup> I would like to thank T. V. Buttrey for pointing this out to me.

<sup>70</sup> D. W. MacDowall, "CAC—A Claudian Countermark from Lower Germany," *SM*, Vol. 20, no. 78 (May 1970), p. 37. See PLATE XVIII, 5 here (National Museum of Ireland, Dublin, photograph (enl. 2×) courtesy of National Museum).

<sup>71</sup> Fifteen examples are listed by MacDowall, "CAC," p. 40, of which twelve are on coins of Gaius. The other three are on coins of Augustan moneyers. With one exception, all the examples with a known provenance come from Lower Germany.

TABLE II

	Agrippa	Gaius	Claudius	A	B	C
	Agrippa	Gaius	Claudius	Agrippa	Agrippa	Gaius
				Gaius	Claudius	Claudius
GAUL						
Condé-sur-Aisne (see note 25)	108	134	264	.80	.41	.51
Mayenne (NC 1967, pp. 43ff.)	113	275	3,870	.41	.03	.07
Totals	221	409	4,134	.53	.05	.10
BRITAIN						
Richborough (Richborough Excav. 1-5 [London, 1932])	38	28	302	1.35	.13	.09
Camelodunum I & II (Soc.Antiq Lond- ResRep 1947, p. 145)	22	54	168	.41	.13	.32
Totals	60	82	470	.73	.13	.17
RHINE-DANUBE						
Mainz (FMRD IV, p. 1)	24	40	32	.60	.75	1.25
Hofheim (see note 32)	61	36	32	1.56	1.19	1.12
Neuss (see note 2)	25	110	92	.23	.27	1.19
Vindonissa (see note 7)	180	393	196	.46	.92	2.00
Kempten (FMRD I, p. 7)	57	58	146	.99	.39	.40
Totals	347	637	498	.54	.70	1.28
Totals without Kempten	290	579	352	.50	.82	1.64

all dates the coin to the reign of Claudius and concludes that the Agrippa overstrike must also date to that time or later.<sup>72</sup> Nevertheless, it does not appear that these Agrippa asses were struck in any great quantities during Claudius' reign.

Table II records the *aes* of Gaius and Claudius found at various sites in Gaul, on the Rhine frontier and in Britain. The last two are of particular interest as Gaius was active with the Rhine armies in 39–40 and Claudius invaded Britain in 43. (Totals from Gaul and Kempton, in Bavaria, have been included as controls.) If the Agrippa *as* was minted in large numbers under Claudius, the results should show up at the British sites. From Table II we may conclude first that in each of the three areas there is a relatively consistent relationship between the number of Agrippa asses and the *aes* of Gaius (Col. A: an overall average of .55; range: .50 to .73; individual sites, understandably, show a much greater variation). This relationship is not affected by the relative frequency of Claudian *aes*. Second, whatever may have been the case elsewhere, the Agrippa *as* could not have been struck under Claudius as a special or large issue for the invasion of Britain. These conclusions indicate that the frequency of Agrippa asses varies directly with the frequency of the Gaian *aes* but is independent of the frequency of the Claudian *aes*.

It is reasonable, then, to believe that the major issue of Agrippa asses was struck under Gaius because of 1) the absence of any significant numbers of Agrippa asses in the British sites and 2) the consistent relationship of the coins of Agrippa and Gaius to one another, regardless of the frequency of Claudian coins. The alternative is to interpret the German evidence to indicate that, when Claudius invaded Britain, Agrippa asses were selectively *not* distributed to the troops involved but,

<sup>72</sup> MacDowall, "CAC," p. 40. See also Chantraine, *Novaesium III*, p. 29. Nevertheless, there are some grounds for assigning the countermark to Gaius. First, CAC fits his normal titulature, C. Caesar Augustus Germanicus, better than Claudius' Ti. Claudius Caesar Augustus (Germanicus is not usually added, compare *BMCRE* Claudius, nos. 115 ff). Second, Claudian countermarks usually include some aspect of Claudius' name which clearly distinguishes him from his predecessors, i.e. TI or CL. Third, CAC, aside from the two appearances on the Augustan coins, is always on coins dated to Galus TR POT (see MacDowall, "CAC," p. 38). This countermark may then reflect Gaius' known activity in Lower Germany in 40 (see below).



on the contrary, were distributed to those who stayed on the Rhine. Without supporting evidence, that alternative would seem unlikely.

In general, though some Agrippa *asses* were struck (officially or unofficially) under Claudius, it is clear that they were not struck in any significant numbers.

Having established the date of the major issue, we may now turn to the problems of genesis and historical significance.

### GENESIS AND HISTORICAL SIGNIFICANCE

The Agrippa *as* cannot be explained simply as a commemorative coin. The number of these *asses* far exceeds the totals of even the combined "Family" types of Gaius and Claudius (i.e. the parents, brothers and sisters):

TABLE III

The Family Types of	Vindonissa	Condé	Richborough
Gaius	76	60	10
Claudius	$32 + \frac{3}{2}$	14	19
Agrippa <i>asses</i>	180	108	38

We must conclude, then, that Gaius had other reasons for stressing Agrippa.

A numismatic answer can be provided. There was an active tradition of Agrippa coinage in the West. The colony of Nemausus, recipient of many benefactions from Agrippa,<sup>73</sup> produced perhaps as many as three separate issues of a type bearing his portrait. Grant first pointed out the multi-provincial importance of this series, listing it among the six main *aes* coinages of Augustus (see PLATE XVIII, 1, 2 [ANS]).<sup>74</sup> The series, which has been divided into three groups, may be described as follows:

<sup>73</sup> Including the Maison Carrée and Pont du Gard. See M. Reinhold, *Marcus Agrippa* (Geneva, N.Y., 1933), pp. 90 ff.

<sup>74</sup> M. Grant, *Six Main Aes Coinages*, p. 53.

*Obv.* : IMP DIVI F. Back to back busts of Agrippa (l. with rostral crown) and Augustus (r., Group I without crown, Group II with crown, Group III with crown and the legend P(ATER) P(ATRIAE) lower l. and r.)

*Rev.* : COL NEM Crocodile chained to palm tree

Kraay and Kraft date the series as follows:<sup>75</sup> Group I: ca. B.C. 20–B.C. 10; Group II: B.C. 10–A.D. 10; Group III: A.D. 10–A.D. 14 (?).

Considerable quantities of these coins have been found at Vindonissa. Kraay records the following:<sup>76</sup>

TABLE IV

Nemausus I	$41 + \frac{23}{2}$
Nemausus II	$16 + \frac{27}{2}$
Nemausus III	$5 + \frac{16}{2}$
Nemausus I or II	$3 + \frac{32}{2} + \frac{3}{4}$
	<hr/>
	$65 + \frac{98}{2} + \frac{3}{4}$

What is most significant about these numbers is the large number of halved coins (see PLATE XVIII, 3, 4 [ANS]) which were cut so that each of the two back-to-back portraits remained intact. These cut coins seem to have circulated freely together with the normal, uncut coins. Considering the number of Agrippa halves in circulation, it is not unreasonable to believe that the government brought out a new Agrippa *as* in order 1) to rationalize the existing practice of halving by issuing a regular series with the same features as the old half, 2) to continue to circulate

<sup>75</sup> Kraay, *Vindonissa*, p. 25; "The Chronology of the Coinage of Colonia Nemausus," *NC* 1955, p. 75. See also K. Kraft, "Das Enddatum des Legionslagers Haltern," *Bonner Jb* 1955–1956, p. 108.

<sup>76</sup> Kraay, *Vindonissa*, p. 71.

a coin type with which people were familiar, and 3) to issue a type which complemented the "family" series of Gaius.

There is also another possible reason for the number of the Agrippa *asses*. Mention has been made above (p. 81) that there is a relatively constant relationship between the totals of the Gaian *aes* and the Agrippa *asses*. Both groups reached their highest level (in comparison with the coins of Claudius) on the Rhine frontier (see Table II). This result is probably not accidental.

We know from the accounts of Suetonius and Cassius Dio that Gaius was very active on the Rhine frontier between the autumn of 39 and the summer of 40.<sup>77</sup> First, he is seen suppressing the dangerous conspiracy of Gaetulicus, then leading the troops on extensive maneuvers, the goal of which may have been the invasion of Britain.<sup>78</sup> Both of these activities involved a considerable amount of money, which may be reflected in the large numbers of Gaian *aes* coins (including the Agrippa *asses*) found at the Rhine camps.

First, it would not be surprising for Gaius to ensure the loyalty of the legions, as he passed north to Mainz,<sup>79</sup> by distributing a donative, first to Legio XIII at Vindonissa, then to the other legions in the more northern camps of Mainz, Vetera and Neuss.<sup>80</sup> Under similar circumstances his father had not done less.<sup>81</sup> Second, it is known that after the confusing events of 40 on the North Sea coast Gaius distributed a donative of 100 denarii.<sup>82</sup> It is probably to these events that the relatively large numbers of Gaian *aes* (including Agrippa *asses*) should be connected.

<sup>77</sup> Suetonius, *Gaius* 24.3; 39; 43–49; Dio 59. 21–23; 25.1–5. See Balsdon, *Emperor Galus*, pp. 58 ff. and P. J. Bicknell, "The Emperor Gaius' Military Activities in A.D. 40," *Historia* (Wiesbaden) 1968, p. 496.

<sup>78</sup> See Bicknell, "Emperor Gaius' Military Activities," for the most recent discussion of this problem. He concludes that Britain was an objective of Gaius.

<sup>79</sup> For the route see J. P. V. D. Balsdon, "Notes Concerning the Principate of Galus," *JRS* 1934, p. 16.

<sup>80</sup> For the legions involved see Ritterling's article "Legio," *RE* 12, cols. 1242 ff. The use of *aes* as a donative is not uncommon: see *BMCRE Galus*, nos. 33 ff. and M. Crawford, "Money and Currency in the Roman World," *JRS* 1970, pp. 45, 47–48.

<sup>81</sup> See Tacitus, *Annals* 1.36.

<sup>82</sup> Suetonius, *Gaius* 46.

The situation may be reconstructed as follows: Gaius, not being able (or wanting) to appeal to his relationship to Tiberius, connected himself to Agrippa in the same manner that Tiberius stressed his relationship to Augustus with the DIVVS AVGVSTVS PATER series. The connection does not end here. Agrippa already had a long numismatic history in Gaul through the Nemausus series. Further, he had been active on the Rhine and had possibly founded the important camps at Vetera, Neuss, and Mainz,<sup>83</sup> and Tacitus notes that during the soldier revolt of 14 the troops could still be rallied by his name.<sup>84</sup> Finally, if Gaius was actually preparing for an invasion of Britain, the naval motif of the rostral crown and Neptune would not be inappropriate propaganda.

Having decided for these reasons that the Agrippa *as* would play a large part in his donations, Gaius would have had to order many dies to be prepared. If the amount of time available for the production of these dies was reduced in order to meet the demands of the moment,<sup>85</sup> there may have followed a relaxation of stylistic standards, allowing for several varieties to occur.<sup>86</sup> The so-called "provincial" style may then be the result of such haste.

Although all these hypotheses are possible explanations for the size of the Agrippa issue, there is, ultimately, no evidence that links any one or any combination of them directly to the coin.

## CONCLUSIONS

No evidence has been found to support a pre-Gaian date for the *asses* of M. Agrippa. Beginning, however, in 37 they were struck in large numbers until Gaius' death in 41. If Claudius continued to strike this type, it was on a much more limited scale, appropriate no doubt to his other family issues.

<sup>83</sup> The chronology of Agrippa's activities in Gaul and on the Rhine is a difficult problem. See H. von Petrikovits, *Das römische Rheinland (Beihefte der Bonner Jahrbuch Bd. 8)* (Cologne, 1960), p. 16 and note.

<sup>84</sup> Tacitus, *Annals* 1.41.

<sup>85</sup> Balsdon describes the *celeritas* of Gaius in suppressing the conspiracy of Lentulus Gaetulicus, see above.

<sup>86</sup> One may possibly see the same phenomenon on the Vesta *asses* of Gaius found at Vindonissa. See Kraay, *Vindonissa*, pl. 7.

The genesis of the Agrippa type is to be found in the important series of *aes* which bear the portraits of Agrippa and Augustus and which were issued by the colony of Nemausus during the reign of Augustus. As these coins were often neatly halved, it is not unreasonable to believe that the government brought out a new Agrippa *as* in order 1) to rationalize and continue this series, 2) to issue a type which complemented Gaius' other family series and 3) to advertise the military ambitions of the new princeps, most probably in regard to a seaborne invasion of Britain.

## THE GOLD COINAGE OF THE EMPEROR CONSTANTINE VII

(PLATES XIX-XX)

TIMOTHY E. GREGORY

During the long reign of Constantine VII (908–959) the Byzantine Empire averted a serious threat from Symeon of Bulgaria, while the Macedonian dynasty survived the revolt of the Doukai and the usurpation of Romanus Lecapenus.<sup>1</sup> The coins of this period—particularly the gold, which generally bore the weight of imperial ideology—have information to add to our knowledge of this important age. Unfortunately, the complexity which arouses our interest in this coinage also leads to considerable confusion. During the reign of Constantine no less than twelve people were entitled to the imperial dignity, and many of them appeared on the coins. Moreover, there were two emperors named Romanus and two named Constantine, each representing a father and son combination, so that when the coins speak of Constantine and Romanus one cannot always be certain who is intended.

The first problem is to place this coinage in its proper order. Four attempts have been made in the past century and none is fully satisfactory. In 1862 Sabatier assigned six varieties of gold to Constantine VII and his associates in a rather haphazard arrangement which failed to take notice of the complex shifts of power within the imperial college.<sup>2</sup>

<sup>1</sup> For the political and cultural history of this period, see A. Rambaud, *L'Empire grec au X<sup>e</sup> siècle: Constantin Porphyrogénète* (Paris, 1870), and S. Runciman, *The Emperor Romanus Lecapenus and His Reign* (Cambridge, 1929). The sources for the reign of Constantine VII rely primarily on the contemporary, but now lost, chronicle of Symeon the Logothete, which carried the story down to the death of Romanus I in 948. The substance of this account is preserved in several chronicles, including the *Chronographia* called "Theophanes Continuatus" (*Corpus Scriptorum Historiae Byzantinae* 33 [Bonn, 1838]). Also of considerable importance are the works of Liutprand of Cremona, especially the *Antapodosis* (ed. Bekker [*Scriptores Rerum Germanicarum*], Hanover, 1915). There is a good discussion of sources in Runciman, *Romanus Lecapenus*, pp. 1–6.

<sup>2</sup> J. Sabatier, *Description générale des monnaies byzantines* 2 (Paris, 1862), pp. 118–130.

He placed the coins in three main periods: 1) the time when Zoe held the regency for her son Constantine (913–919); 2) the period of the ascendancy of Romanus Lecapenus (920–944); and 3) the joint rule of Constantine VII and his son Romanus II (945–959). The only more specific reference Sabatier made was to a coin of Romanus and Constantine, which he attributed to Romanus Lecapenus and his third son Constantine and dated 928–944.<sup>3</sup>

By 1908 two other varieties had become known and Wroth identified the Pantocrator coin, which Sabatier had attributed to Constantine Monomachus, as an issue of Constantine Porphyrogenitus (945).<sup>4</sup> He then divided the coins into eight periods, laying the foundation for all subsequent discussion by pointing out the difficulties in the issues struck about the time of the accession of Romanus Lecapenus (919–921).

It was left to Goodacre to draw the full implications from all this in 1935, in an article which added two more varieties of gold to the series, bringing the total to eleven (all those known to date).<sup>5</sup> In his arrangement of these coins Goodacre was probably influenced by the literary sources of the period,<sup>6</sup> which point to the craftiness of Romanus Lecapenus and his gradual usurpation of the throne at the expense of the legitimate emperor Constantine. The coins seemed perfect illustrations of the gradual rise to power of Romanus and the sudden eclipse of his family. The analysis was attractive in its simplicity and its apparent correspondence with the historical sources. Unfortunately, Goodacre had not seen one of the coins he described, on which Constantine appeared beardless when he should have been bearded,<sup>7</sup> indicating that the coin had to come earlier in the sequence. This upset Goodacre's arrangement and suggested that the whole problem had to be studied again.

<sup>3</sup> Sabatier, *Description générale*, p. 127, no. 10.

<sup>4</sup> W. Wroth, *Catalogue of the Imperial Byzantine Coins in the British Museum* (London, 1908), pp. 451–467. Sabatier, *Description générale*, p. 158.

<sup>5</sup> H. Goodacre, "The Story of Constantine VII, Porphyrogenitus, from His Solidi," *NC* 1935, pp. 114–119.

<sup>6</sup> Chief among these is Liutprand, *Antapodosis* III. 26–37 (Trans. F. A. Wright [London, 1930], pp. 121–128).

<sup>7</sup> This coin was Goodacre's no. 10, described by Wroth, *BMC Byz.*, p. 460, as "bearded?."

In 1967 this was done by Bellinger, the first to discuss fully the stylistic differences between the two main types of the Rex Regnantium obverse.<sup>8</sup> In both of these the coin is dominated by the figure of Christ seated on a round or lyre-back throne.<sup>9</sup> In his left hand he holds an ornamented book while the right hand is raised in benediction. Type I, however, which first appeared on a *solidus* of Basil I in 867–68 (PLATE XIX, 1), seems to be characterized by a much cruder appearance. The head is grossly oversized and the folds in Christ's robe are represented by simple lines. The figure's left leg resembles a large stump and the right hand, which is held outside the back of the throne, has a strange, almost claw-like, shape. As the perspective of the foot-stool shows, the scene was meant to have been viewed from the spectator's right.<sup>10</sup> Type II, found first on a *solidus* of Leo VI dated to 908 (PLATE XIX, 2), is much more attractive. The head is not quite so oversized and the throne is more elegant. The rounded lyre back is fully detailed, as are the folds in the robe and the features of the Savior. The hand held in blessing is within the back of the throne and the scene is represented as viewed

<sup>8</sup> Alfred R. Bellinger, "Byzantine Notes: 6. The Coins of Constantine Porphyrogennetus and His Associates," *ANSMN* 13 (1967), pp. 152–153.

<sup>9</sup> In an interesting forthcoming study, which the author kindly allowed me to read in manuscript, Anthony Cutler has drawn careful attention to the theme of the lyre-back throne, which he connects with the lyre of Orpheus and the "harmony of the oecumene." The essential element of this representation, according to Cutler, is the reverse curve of the back of the throne as it reaches the top. From this one should conclude that the throne of Type I is not lyre-backed, but simply round-backed. It might, then, have less ideological significance.

<sup>10</sup> This has not, to my knowledge, been noticed before. Such a view would help to explain some of the more grotesque characteristics of Type I, such as the out-stretched hand and the strange representation of the legs and feet. If the die engraver attempted to develop some kind of perspective, as viewed from the right, he might well have made Christ's right hand *appear* to be outside the back of the throne—as it would look to someone in such a vantage point. (It can be argued that the die-cutter was not capable of placing the hand directly in front of the body in such a small space; Type II, however, shows the hand in just this position.) In the same way, the depiction of the legs and feet were meant to represent contraposto; the figure of Christ had shifted the weight of his body to his left side, thus forcing his right foot out at approximately a 45-degree angle. When the scene was viewed from the spectator's right, this foot would appear to be perpendicular to the line of vision.



from the spectator's left.<sup>11</sup> In each type the legend is the same, but in Type II the letters are smaller and the final "m" is rounded, while the inscription of Type I ends in a six-pointed star.

Despite his consideration of the stylistic differences between the two types, Bellinger's criteria for the arrangement of the series were largely historical. On the whole he accepted Goodacre's premise that the coins followed the complex events of the day and nicely illustrated the political subtlety of Romanus Lecapenus. Since the arguments which follow will contain many references to Bellinger's work, a brief summary of his arrangement of the gold coins will be helpful.

*February 914 – March 919*

*Obv.*: Rex Regnantium, Type I  
*Rev.*: Constantine and Zoe

*December 17, 920 - May 20, 921*

<i>Obv.</i> : Rex Regnantium, Type II	PLATE XX, 2
<i>Rev.</i> : Constantine and Romanus	
<i>Obv.</i> : Rex Regnantium, Type I	PLATE XX, 3
<i>Rev.</i> : Constantine and Romanus	
<i>Obv.</i> : Rex Regnantium, Type II	PLATE XX, 10
<i>Rev.</i> : Constantine and Romanus, Romanus on left	
<i>Obv.</i> : Rex Regnantium, Type I	PLATE XX, 4
<i>Rev.</i> : Romanus and Constantine	

<sup>11</sup> The narthex mosaic is similarly represented from the spectator's left. This would strengthen the argument of those who wish to connect this coin with the mosaic. It is interesting, however, to note that in Type II the right foot of Christ is still represented as perpendicular to the line of vision, which would be impossible for all except the double-jointed. This suggests that the engravers for this coin looked not only at a monumental prototype, but also at the coins of Type I and that they borrowed the position of the foot from the latter.

<sup>12</sup> Bellinger, "ByzNotes: 6," p. 155, dates these coins from December 919 to May 921, pointing out in note 34, p. 154, that the date of Romanus' coronation must be emended to December 920. There are also problems concerning the date of Romanus' seizure of absolute power and the date of the coronation of his son Christopher. The former will be dealt with in note 22 below. The chronographers date Christopher's coronation May 17 or 24, 920, but this must be emended to May 20, 921. See Bellinger, "ByzNotes: 6," p. 157, note 35.

*May 20, 921 – August 931*

<i>Obv.</i> : Rex Regnantium, Type I	PLATE XX, 6
<i>Rev.</i> : Romanus and Christopher	
<i>Obv.</i> : Rex Regnantium, Type II	PLATE XX, 5
<i>Rev.</i> : Romanus, Const., and Christopher	
<i>Obv.</i> : Romanus crowned by Christ	PLATE XX, 7
<i>Rev.</i> : Christopher and Constantine	
<i>Obv.</i> : Romanus crowned by Christ	PLATE XX, 8
<i>Rev.</i> : Constantine and Christopher	

*January 27 – April 6, 945*

<i>Obv.</i> : Christ Pantocrator	PLATE XX, 9
<i>Rev.</i> : Constantine Autocrator	

*April 6, 945 – November 9, 959*

<i>Obv.</i> : Christ Pantocrator	PLATE XX, 11
<i>Rev.</i> : Constantine and Romanus	

On the basis of Bellinger's arrangement of the coins several observations about imperial precedence and political propaganda in tenth-century Byzantium are possible. Although Romanus Lecapenus passed from being Caesar to senior emperor in less than six months, he commemorated each step of his ascent carefully in the coins: "On the first all features are correct . . . . On the second the correct inscription is continued but, as shown by the beard, it is the bust of Romanus which is to the left in the senior position and his hand is higher on the shaft. . . . The third type is exactly the same but in the inscription the name of Romanus now stands first thus completing his claim to seniority."<sup>13</sup> Legally, the elevation of Christopher Lecapenus, in May of 921, only added a third member to the imperial college, but the coins, which did not even mention Constantine, revealed Romanus' real purposes. Sometime later (Christopher now had a beard), the coins proclaimed the order Romanus, Constantine, Christopher; the legitimate emperor had been restored to favor. In 927 the Bulgarians, whose czar was to marry Christopher's daughter, complained that Christopher was inferior to

<sup>13</sup> Bellinger, "ByzNotes: 6," p. 157. *For* (Nos. 6–8) *read* (Nos. 7–9).

Constantine. The result of this is reflected in the next gold coin, where Christopher was again given precedence over the Porphyrogenitus. This coin was followed, unexpectedly, by one in which Constantine again assumed the second position. Bellinger suggests that this second demotion of Christopher may have been connected with the conspiracy of his father-in-law, Magister Nicetas, in 928. "It may be that Christopher was sufficiently compromised to make Romanus feel that it would be well to remind his family that there was still a legitimacy superior to theirs."<sup>14</sup> Christopher died in 931 and the dynasty of the Lecapeni collapsed with him. Romanus fell victim to a plot, engineered by his remaining sons, in 944. Apparently no further gold was struck until 945, when Constantine became sole emperor. He proclaimed his independence with a new obverse type and an impressive reverse portrait (PLATE XX, 9).<sup>15</sup> Later he appeared with his son Romanus II.

Bellinger's arrangement is attractive and its general outline is certainly correct. However, several details are disturbing. The first is the order of the four issues he assigns to the period between December 920 and May 921. The reverse of the third (PLATE XX, 10) has a legend giving the order of precedence as Constantine and Romanus, but a bearded figure appears on the left. Bellinger, and earlier Wroth, noted that Constantine would not have been bearded in 921 and identified the figure in the position of honor as Romanus Lecapenus. The coin thus formed a convenient bridge between issues and illustrated that the ambitious Lecapenus seemed to secure the imperial dignity carefully and by degrees. The interpretation is open to some doubt. The main feature of this coin—the contradiction between placement in the legend and on the type—is curious and to my knowledge unique in the history of Byzantine coinage. If Romanos Lecapenus issued this coin, the subtlety of its message must have escaped most of those for whom it was intended.

There is a second reason to suggest the re-interpretation of these four issues. In Bellinger's arrangement, the obverse *Rex Regnantium* types fall into an alternating order, I, II, I, II, I, I, II, which is unusual and

<sup>14</sup> Bellinger, "ByzNotes: 6," p. 161.

<sup>15</sup> Bellinger dealt with the coin in "Byzantine Notes: 5. Three Imperial Portraits," *ANSMN* 13 (1967), p. 142.

calls for explanation. The differences in style cannot be the result of the evolution in the ability of the die-cutters, as in any arrangement some of these issues must have been struck within a very short period. Bellinger was aware of this difficulty and suggested that the two types were copies of two different, but equally important, monumental icons. The prototype of Type I was the "holy icon of our Lord and God sitting on a throne" in the conch of the Chrysotriclinus of the Great Palace.<sup>16</sup> Unfortunately, we know nothing of the form of this image, nor whether indeed it was the icon (as the text seems to indicate) or the person of Christ which was sitting on a throne.<sup>17</sup> Type II, much more ornate and different in several respects, was, according to Bellinger, a copy of the mosaic over the imperial doors in the narthex of Hagia Sophia.<sup>18</sup>

The identification of these prototypes is possible, but by no means certain. Even if they are accepted, however, one must still explain why one type was used for a particular issue and why the types alternated in such a curious manner. Both of the supposed prototypes had political connotations: Type I had been used exclusively by Basil I and Type II by Leo VI. In the highly-charged atmosphere of Constantinople in 920–21 the use of these two types cannot have been capricious. It is difficult to believe that Romanus Lecapenus, a clever politician and obviously concerned with the content of the reverse of his coins, would have ignored the potential of the obverse. We must either find some reason for the alternation of types or change the sequence of the issues.

Die study indicates that a change in the order of issues is necessary. If the surviving coins represent a random sample of those originally struck and if the number of coins examined is reasonably large, we may estimate with some degree of certainty the total number of dies used. From this information we may arrive at some estimate of the

<sup>16</sup> Bellinger, "ByzNotes: 6," p. 153. J. D. Breckenridge, *The Numismatic Iconography of Justinian II* (New York, 1959), pp. 52–53.

<sup>17</sup> Bellinger, "ByzNotes: 6," p. 153 note 32. According to Breckenridge, *Justinian II*, p. 53 note 32: "This phraseology might apply to a portable icon, placed upon the imperial throne itself, but the context of these passages, together with the other description . . . make it clear that such was not the case." I am not so certain.

<sup>18</sup> Bellinger, "ByzNotes: 6," p. 153. The most recent discussion of these prototypes is A. Veglery, "The Date of the Narthex Mosaic in St. Sophia at Istanbul," *NCirc* 1971, pp. 100–102.

size of the issue.<sup>19</sup> Unfortunately the gold coins of Constantine VII are not available in large numbers and it would be senseless to attempt to determine the absolute size of the various issues.<sup>20</sup> It might, however, be possible to suggest a rough estimate of the relative size of these issues. Caution must be exercised, as small mistakes will be greatly magnified. Tenuous evidence must not be made to carry more weight than it will bear.

**Table I**  
**EVIDENCE OF DIE IDENTITIES<sup>21</sup>**

<i>Issues</i>	<i>Dies</i>	<i>Die Ratio (d/c)</i>
Alexander	22 coins examined	
	4 obv. dies	.182
	6 rev. dies	
Constantine and Zoe	7 coins	.429
	3 obv.	
	3 rev.	
Constantine and Romanus	33 coins	
	12 obv.	.364
	14 rev.	
Constantine and Romanus	14 coins	
	4 obv.	.286
	2 rev.	
Constantine and Romanus	13 coins	
	10 obv.	.746
	11 rev.	

<sup>19</sup> See C. S. S. Lyon, "The Estimation of the Number of Dies Employed in a Coinage," *NCirc* 1965, pp. 180-181.

<sup>20</sup> The methods proposed by Lyon will not even allow the calculation of the (estimated) number of dies for some of these issues. On the basis of the available information the number of dies for these issues is theoretically infinite.

<sup>21</sup> The coins used in this study came from the ANS, Dumbarton Oaks, and various published catalogues. The number of coins examined must approach the total number of surviving specimens. I must thank Professor Grierson for putting at my disposal his personal photograph file on these coins.

Romanus and Constantine	13 coins 7 obv. 7 rev.	.538
Romanus and Christopher	22 coins 21 obv. 22 rev.	.955
Romanus, Constantine, and Christopher	8 coins 4 obv. 2 rev.	.500
Christopher and Constantine	5 coins 1 obv. 1 rev.	.200
Constantine and Christopher	16 coins 8 obv. 8 rev.	.500
Constantine	13 coins 9 obv. 9 rev.	.692
Constantine and Romanus II	42 coins 39 obv. 39 rev.	.929

By computing the ratio between the number of coins examined and the number of different dies found, we should be able to distinguish between a very large and a very small issue. The results of such a die study are summarized in Table I. The coins of Alexander offer an interesting example. In terms of the number of surviving specimens, this issue appears to have been large. However, Alexander reigned for only one year and the low die ratio (.182) tells us that his was indeed a very small issue. The coins issued in the name of Constantine and Zoe, struck between 914 and 919 are, as one would expect, moderate in number (die ratio .429), while the issue of Constantine and his son Romanus II, struck between 945 and 959, is very large (die ratio .929).

Needless to say, the greater the number of specimens examined, the greater the faith we may put in these calculations. Only the most general conclusions may be drawn with any degree of safety. The coinage of Constantine and his son Romanus II was clearly larger than that of

Alexander, but on the basis of the small number of coins examined it would be impossible to say, for example, whether the Romanus-Constantine or the Romanus-Constantine-Christopher issue were the larger.

If Bellinger's arrangement is correct and we must place the four issues of Constantine and Romanus within the space of the five months December 920—May 921, we should expect each of these issues to be fairly small. The first two are perfectly compatible with a short period of issue, but the die ratios of the next two (.746 and .538) suggest that they were probably not struck in so short a time along with the two other issues. This evidence is far from conclusive; such a large number of coins *could* have been issued within five months. But the evidence of die identities strengthens the suspicion that some of these coins must be re-assigned.

The issue most obviously out of place is the third Constantine and Romanus coin. On p. 92 above we noted the problem of identification of figures seemingly in reverse of the legend. We may assume that since Constantine was not bearded in 920–921, the issue must date from later in his reign, after 945. The bearded figure to left, then, is Constantine, the beardless one to right is his son Romanus II. Such a shift will eliminate the objection that these four issues could not have been struck within a period of five months. The remaining three issues could reasonably fit into that time period.

The problem of the alternation of types, however, still remains. The most obvious solution is Grierson's suggestion that there was none. Instead, all the issues with the same obverse type should be arranged in sequence. Some of the coins of Type I are unquestionably early (Zoe and Constantine), while at least one of the coins of Type II (Constantine and Romanus II) was struck late in the period. It would be reasonable to place all the issues of Type I chronologically earlier than all the issues of Type II. This would answer the vexing problem of why one type was used rather than the other: toward the end of the period the more attractive Type II was preferred to the cruder representation.<sup>22</sup>

<sup>22</sup> *Catalogue of the Byzantine Coins in the Dumbarton Oaks Collection and in the Whittemore Collection*. Vol. 3. *Leo III—Nicephorus III (717-1081)*. By Phillip Grierson. In 2 parts (Washington, D.C., 1973), pp. 530–536. The argument which follows is based on the assumption that Romanus Lecapenus was crowned *augustus*

Aside from the distinctive appearance of each type, the inscriptions are different in style. On Type I the letters are large and generally well-formed, while on Type II the letters are much smaller and frequently carelessly done. On the issues which are definitely early (Alexander, Constantine and Zoe) the letters are large; on those which are unquestionably late (Pantocrator obverse) the letters are small. Grierson's concept of an evolution of letter size, from large to small, fits well with the hypothesis that all of the Type II issues are late.<sup>23</sup> An arrangement which places all the issues of Type II late also allows the gold coinage to be spread more evenly through Constantine's reign. The first three Type I issues in Bellinger's arrangement would remain dated as they are now. The first Type II could be moved to fill the gap between the death of Christopher (931) and the sole reign of Constantine (945). We have already placed the second Type II after 945. Since Christopher appears with Constantine on the reverse of the third Type II (PLATE XX, 5), this coin must date before 931; it would then be the earliest coin with the Type II obverse. This is interesting because on the obverse the hand of Christ extends beyond the himation, though other Type II hands do not. It would be natural to place this issue at the beginning of the series, since the position of the hand is close to that on Type I coins.

Nevertheless, several considerations make this arrangement almost impossible to accept. In the first place, an objection arises to the theory of the evolution of letter size. The Romanus-Constantine-Christopher issue (PLATE XX, 5) clearly has the largest letters of the issues of Type II (so large that we wonder whether it should not be dated earlier), and so might easily be placed first. The coin of Constantine and Romanus II (PLATE XX, 10) which should have the smallest lettering because

in December 920 and had become senior emperor by May 921. According to the chroniclers, the coronation of his son Christopher was performed in May 921 *διὰ βασιλέως* (Theoph. Cont., p. 398). G. Ostrogorsky, *History of the Byzantine State* (trans. J. Hussey [Oxford, 1968]), p. 270 note 1, and others argue that Romanus did not become senior emperor until after the coronation of Christopher, but some time before the protimesis novel of April 922. Romanus had crowned his wife by his own hand in January 921 and it seems unthinkable that Christopher should become *augustus* unless his father were senior emperor.

<sup>23</sup> This arrangement is essentially that proposed by Grierson, *DOCat* 3, pp. 530–531.



it comes last in the series, has letters which are noticeably larger than those of Constantine alone (PLATE XX, 9) and Constantine and Romanus I standing (PLATE XX, 2). On the basis of letter size this coin should come earlier than those issues, disrupting the whole sequence.

A more serious objection to this arrangement deals with the composition and attribution of the first Constantine-Romanus issue (PLATE XX, 2). This coin shows Constantine, small and beardless, in the position of seniority on the left; Romanus is on the right, larger and bearded.<sup>24</sup> The argument that this coin fills the gap in the gold between the death of Christopher in 931 and the sole rule of Constantine in 945, meets with historical contradiction. After the death of Christopher, Romanus was deeply disturbed; he wept and lamented "more than the Egyptians when they lost their firstborn sons."<sup>25</sup> In such a condition he might have restored the legitimate emperor to a position of superiority on the left; we know he did nothing to further the imperial ambitions of his younger sons. However, in 931 Constantine was twenty-six and had already appeared bearded on a coin with Christopher (PLATE XX, 5). If Romanus wished to denigrate his colleague by making him appear a beardless youth, he would hardly have placed him in the position of honor on the coin. Numismatic evidence joins with history to insist that this issue be placed early in the reign, after the coronation of Romanus I, but before he made himself senior emperor (December 17, 920 – March 921[?]).

What is the solution? Since we cannot accept the two types of the Rex Regnantium obverse as chronologically successive, we must explain how and why they alternated throughout the reign. This may be done by suggesting that the more elegant Type II represented special, probably coronation, issues. This conclusion is based first on the coins themselves, which stand out from those of the regular issues since they were obviously done with more care and the obverse and, usually reverse, impression they present is clearly more grand (PLATE XX 2, 5, 10).

<sup>24</sup> C. Morrisson, *Catalogue des monnaies byzantines de la Bibliothèque Nationale* 2 (Paris, 1970), p. 569, places this coin in 945 and suggests that the smaller figure is Romanus II. This involves a reversal of personalities between legend and figure which seems both unnecessary and untenable.

<sup>25</sup> Theoph. Cont., p. 420.

Both obverse types represent essentially the same message: Christ is the "king of those who rule," and in this capacity has a special relationship with the emperor of the Romans, and particularly the Macedonian dynasty.<sup>26</sup> The differences between them may have been the result of two different prototypes, but this is all but impossible to prove as there is no certain knowledge of what the icon in the Chrysotriclinus looked like.

More significantly, there are some important differences between the Type II coins and their supposed prototype in the narthex of Hagia Sophia.

In the mosaic the book Christ holds is open and the inscription clearly legible. On the coins the book is closed, as is shown by the decoration representing the jewel-studded cover. It might be argued that it was impossible to represent the text of the book on a coin, but earlier examples had attempted something like this<sup>27</sup> and the die cutter, were he copying the mosaic in Hagia Sophia, could at least have shown that the book was open. Furthermore, on solidi of Leo VI and of Romanus with Constantine and Christopher (PLATE XX, 5) the hand which Christ holds in blessing is turned outward, away from his chest, while the mosaic has the hand directly in front of the body. In addition, on these same coins the reverse curve of the lyre-back throne is clearly visible at the top, while in others (perhaps following the mosaic?) these have been turned into mere knobbed appendages. This suggests that there was indeed a prototype for these coins—but only in a general sense; the details of each issue may have owed as much to the iconography of earlier coins as they did to monumental representations.<sup>28</sup> This is confirmed

<sup>26</sup> See Breckenridge, *Justinian II*, pp. 47–58, for an interesting discussion of the origin of the Rex Regnantium and its significance in the middle Byzantine period. The old idea of the Rex Regnantium received renewed emphasis under Basil I, who needed legitimization after his overthrow of Michael III. The most graphic statement of the relationship between the dynasty and the Rex Regnantium was the mosaic in the imperial bedchamber, showing Basil and his family raising their arms to the "victory-giving cross" and thanking the βασιλεὺς τῶν βασιλευόντων for the safety of the dynasty. *Vita Basilii* 89 (Theoph. Cont., pp. 334–335).

<sup>27</sup> Cf. the solidi of Justinian II in which the emperor holds a globus inscribed PAX (*BMC II*, pp. 332ff.).

<sup>28</sup> One should remember the perspective from which these scenes were to be viewed, which probably caused some confusion for the die-engravers. See notes 10 and 11 above.

by the *solidus* of Alexander (PLATE XX, 12), which is a curious combination of the two types. The hand of Christ extends out beyond the back of the throne, which is clumsily done and only partly decorated (Type I). Yet the throne's full reverse curve is clearly represented and the inscription contains the rounded final *m*.

Nevertheless, there can be no doubt that Type II immediately suggests to us the mosaic in Hagia Sophia—and it may have done the same to contemporaries. It is surely significant that all the coins of Type II represent the person of Christ viewed from the left—as does the mosaic—while those of Type I have the right side of the throne as their vantage-point. Although the mosaic may not portray what actually took place in the narthex of the church,<sup>29</sup> its place at the entrance undoubtedly used for imperial coronations,<sup>30</sup> where it could also be seen by any visitor or resident of the capital, would make it an excellent reminder of the coronation of the emperor and the source of his authority. It would be particularly appropriate for the image of Christ on the special issues of gold struck by the Macedonian emperors.

Assuming, then, that the coins of Type II represent special issues, how and when were they struck and what was their relationship to the regular issues of gold? We have no precise information, but both political and economic factors must have been considered. In dealing with this question we must do away with several misconceptions. In the first place, numismatists have habitually assumed that when one issue begins the previous one must cease. In general this must be true, especially when the “message” of the coin changes, but there is no reason why two different coins cannot have been struck at roughly the same time, as long as their ideological content is the same, or at least not contradictory. In such a case there could be two separate “series” of issues, a regular and special, each perhaps struck in separate workshops of the imperial mint in Constantinople. The regular series, probably larger

<sup>29</sup> The emperor embraced the patriarch, kissed the Gospel, and stood with candles in his hand. This, according to V. Grumel (review of Grabar's *L'empereur, Échos d'Orient* 36 (1937), pp. 214–215), is not what is depicted in the mosaic.

<sup>30</sup> Constantine Porphyrogenitus, *De Ceremoniis* I, 47, Ed. Vogt (Paris, 1935), vol. 2, p. 1. The Book of Ceremonies does not mention the doors through which the coronation procession entered the church. It can hardly have been other than these, however.

in volume, would be designed to provide the bulk of the gold coinage necessary for circulation; the other would have as its purpose the ceremonial commemoration of important imperial events, especially coronations. The latter would probably also serve as gifts to important people, although they were undoubtedly intended to serve as money and must have circulated alongside the regular coins.<sup>31</sup>

Numismatists also normally assume that the mint worked continuously, melting down and restriking the gold as soon as it was returned to the imperial treasury. The fineness of the gold of this period and the needs of government propaganda assure us that this was normally the case. The issues of Leo VI, however, clearly show that gold was not always struck regularly and consistently throughout a reign.<sup>32</sup> Gold might be struck at any time to commemorate an important event, regardless of economic considerations, but during a period of quiet dies may have lain unused for longer periods than we sometimes think. However, Liutprand testifies that the annual outlay of the Byzantine court was immense. More than one thousand pounds of gold were distributed annually to high imperial officials during the week before Easter.<sup>33</sup> This was the equivalent of 72,000 solidi; to this should be added the huge annual sums paid to military officials and foreign rulers. In view of the ceremonial character of the emperor's largesse, one might suspect that these payments were made in special coin.<sup>34</sup> In any case, the heavy outlay of gold and the apparently sporadic activity of the mint suggest that large reserves of *solidi* were normally kept in the palace. These could be used—even if struck some time earlier—as long as their message was still applicable.

<sup>31</sup> On medallions and medallic currency in general see Jocelyn M. C. Toynbee, *Roman Medallions* (New York, 1944), especially pp. 73–124. On early Byzantine medallions and their use see Philip Grierson, "The Kyrenia Girdle of Byzantine Medallions and Solidi," *NC* 1955, pp. 55–70. Among the last medallic coins of Byzantium are the three-milliaresia piece of Phocas (*DOCat* 2, p. 161 no. 21) and the multiple solidus of Heraclius (Morrisson, *Bibliothèque Nationale*, p. 261). Presumably, ceremonial coins were destined for the great distributions of money, especially around the time of Easter.

<sup>32</sup> See Bellinger, "ByzNotes: 5," pp. 143–145.

<sup>33</sup> Liutprand *Antapodosis* VI 10.

<sup>34</sup> See Toynbee, *Roman Medallions*, pp. 73–111; Grierson, "Kyrenia Girdle;" and R. MacMullen, "The Emperor's Largesses," *Latomus* 21 (1962), pp. 159–66.

With the coins of Type II designated as special, coronation issues, the gold of Constantine VII and his colleagues falls into an orderly sequence.

*February 914 – March 919*

- I      Obv.: +IHSXPSREX REGNANTIYM \*
- Rex Regnantium, Type I: Christ bearded and with cross nimbus seated facing on a small lyre-back throne, wearing tunic and himation; r. hand raised in blessing turned outward, outside the back of the throne; book on l. knee.
- Rev.: CONSTANTINOCESARINXΩB'R'
- To l., bust of Constantine facing, beardless, wearing chlamys and crown with cross; to r., bust of Zoe facing, wearing loros and crown with pendilia, cross, and semi-circular ornaments; between, they hold a patriarchal cross, Zoe's hand held higher on the shaft.<sup>35</sup> (PLATE XX, 1)

*December 17, 920 – May 20, 921*

- II      Obv.: +IHSXPSREX REGNANTIYM
- Rex Regnantium, Type II: Christ, bearded and with cross nimbus, seated facing on large lyre-back throne, wearing tunic and himation; throne is ornate and decorated throughout with small pellets; top of throne ends in small balls; Christ's r. hand in fold of the himation, held inward; book on l. knee.
- Rev.    +CONSTANTINOSCE ROMANINXΩB'R'
- To l., Constantine standing facing, beardless, wearing chlamys and tablion and heavy crown with cross, in right hand globus cruciger; to r., Romanus Lecapenus standing facing, bearded, larger than Constantine,

<sup>35</sup> A. Vegliery and G. Zacos ("A Unique Silver Coin of Constantine VII," *NCirc* 1964, pp. 379-80) have published a silver coin of Constantine and Zoe which has all the appearances of a solidus of this period. Its weight and the thickness of its flan make it unlikely that it was designed as currency; perhaps it was a pattern or a trial piece for the gold. This is the view of Grierson, *DOCat* 3, p. 541.

wearing loros and havy crown with cross, in l. hand globus cruciger; Romanus' hand higher than Constantine's shaft of patriarchal cross. (PLATE XX, 2)

III Obv.: Rex Regnantium, Type I.

Rev.: CONΣTANT' CERO MA N' A Y C C ' b '

To l., bust of Constantine facing, beardless; to r., bust of Romanus facing, bearded; both wear loros and crown with cross; they hold patriarchal cross, the hand of Constantine higher on the shaft; both figures are of same size. (PLATE XX, 3)

IV Obv.: Rex Regnantium, Type I.

Rev.: ROMAN' ET CONΣTANT' A Y C C ' b '

To l., larger bust of Romanus facing, bearded, wearing loros and crown with cross; to r., smaller bust of Constantine facing, beardless, wearing chlamys and crown with cross; they hold patriarchal cross, the hand of Romanus higher on the shaft. (PLATE XX, 4)

This period witnessed the coronation of Romanus Lecapenus and the relegation of Constantine Porphyrogitus to a secondary position. Such important developments are recorded on the coins, but in a far less dramatic manner than has hitherto been thought. In the first place, Romanus secured the throne as the defender of the young Constantine and the legitimate dynasty. He made much of his care for the young emperor<sup>36</sup> and proclaimed his loyalty to the ruling dynasty by his use of the Rex Regnantium obverse, one of the great symbols of the Macedonian emperors. Varieties II and III tell essentially the same story: Constantine and Romanus are both *augusti* and Constantine, although younger, is the senior. In 920 Constantine was fifteen years old and he would hardly be pictured as a bearded adult. On the special issue (II) the heights of the two men are realistic, while on the regular coinage (III) the two emperors appear to be the same size.

<sup>36</sup> *Theoph. Cont.*, pp. 398 ff. Romanus took an oath to protect the young Constantine and he pointed to the legitimate emperor's ill health as a pretext for many of his own actions.

Varieties II and III were contemporary issues, although one may have appeared slightly before the other. Variety II (Type II) was a special issue designed to commemorate the coronation of Romanus Lecapenus. Presumably it was to be suspended after some time, while the regular coinage (III) continued throughout the reign. Political events developed swiftly, however, and sometime early in 921 (March?) Romanus supplanted Constantine as senior emperor. Accordingly, the ideological message of Variety III became obsolete and it was replaced by Variety IV, which showed Romanus in the position of superiority. We are told that Romanus acted decisively because of a pro-Constantine conspiracy, one of whose leaders was Anastasius, the *sakellarios* and master of the mint.<sup>37</sup> Runciman and Bellinger put this plot "probably at the time of Christopher's significant coronation."<sup>38</sup> If the conspiracy was the pretext for Romanus' seizure of power, it must have taken place well before the coronation of Christopher. Bellinger's suggestion that the master of the mint "might have been roused to rebellion by the maneuvering of the gold types to the disadvantage of his lawful sovereign," is unlikely, for if we extract the Constantine and Romanus II issue from the series, there was no tampering with the gold until Romanus had already demoted Constantine; the conspiracy was discovered while the coinage still showed the young emperor in the position of superiority. The suppression of the conspiracy and the disgrace of Anastasius must have resulted in a change in the personnel of the mint. This might be reflected in the legend of the reverse of Variety IV, where  $\epsilon\tau$  replaces  $\zeta\epsilon$  as the connective between the two emperors' names, a feature which characterized the coinage as long as Romanus Lecapenus remained in power.

*May 20, 921 – August 931*

- V      Obv.: Rex Regnantium, Type II, with some differences in the decoration of the throne and the placing of the right hand.

<sup>37</sup> *Theoph. Cont.*, p. 400.

<sup>38</sup> Runciman, *Romanus Lecapenus*, p. 67; Bellinger, "Byz. Notes: 6," p. 15 and note 35.

Rev.: ROMAN'CONST' ET XPISTOF'b'R'

In center, Romanus standing facing, bearded, wearing loros and crown with cross, in r. hand scepter, in l. hand anexikakia; to l., half-figure of Constantine standing facing, beardless, wearing ornate chlamys and tablion (?) and crown with cross; to r., half-figure of Christopher standing facing, bearded, wearing ornate chlamys and tablion (?) and crown with cross (PLATE XX, 5).<sup>39</sup>

VI Obv.: Rex Regnantium, Type I.

Rev.: ROMAN'ETXPISTOFO'AYCQB'

To l., bust of Romanus facing, bearded, wearing loros and crown with cross; to r., smaller bust of Christopher facing, beardless, wearing chlamys and crown with cross; they hold patriarchal cross, the hand of Romanus higher on the shaft (PLATE XX, 6).

VII Obv.: +KEBOHΘEI ROM ANΩDECPOTH

To l., Romanus standing facing, bearded, wearing loros and crown with pendilia and cross, in r. hand globus cruciger, l. hand extended; to r., Christ standing facing, bearded, with cross nimbus (without external line), wearing tunic and himation, in l. hand book, crowning Romanus with r. hand.

Rev.: XPISTOF'ETCONST' AYCQB'

To l., bust of Christopher facing, bearded, wearing loros and crown with cross; to r., smaller bust of Constantine facing, beardless, wearing chlamys and crown with cross; patriarchal cross, the hand of Christopher higher on the shaft (PLATE XX, 7).

VIII Obv.: Romanus crowned by Christ, as Variety VII.

Rev.: CONSTANT'ETXPISTOF'b'R'

To l., bust of Constantine facing, bearded, wearing loros and crown with cross; to r., bust of Christopher facing,

<sup>39</sup> This coin was published by K. Regling, "Ein Goldsolidus von Romanus I," *Z/N* 33 (1922), pp. 274-279.



bearded, wearing chlamys and crown with cross; figures are same size; they hold patriarchal cross, the hand of Constantine higher on the shaft (PLATE XX, 8).

As in the preceding period, this time witnessed an imperial coronation, that of Christopher Lecapenus, in May 920. This event was commemorated by the striking of a special issue (V). As before, we find this ceremonial coin more ornate and designed to secure a particular impression. It was also more realistic and more faithful to the legal relationship among the members of the imperial college: Romanus, in the center, is the senior emperor while Constantine, to his right, is second.<sup>39a</sup> At the time of his coronation Christopher Lecapenus was fully mature—he had a daughter of marriagable age in 927. On the coin celebrating his coronation he appears appropriately bearded, while Constantine (who had reached his sixteenth birthday only two days earlier) is beardless. Despite the power of the elder Lecapenus, Christopher was clearly third among the *augusti* in 921, and he is so represented on this coin. On Variety VI, obviously designed as the regular coinage for this whole period, (die ratio .955), the legitimate emperor, Constantine, is not mentioned, and Christopher appears as a beardless youth.<sup>40</sup>

Many have wondered how Romanus could have ignored Constantine on this issue. Such an action is, of course, in keeping with the report that after Christopher's coronation Romanus and his son walked alone

<sup>39a</sup> Grierson, *DOCat* 3, pp. 529–530, 534, 547–548, nos. 8.1 and 8.2, says that the order of precedence in the type is Romanus, Christopher, Constantine, thus contradicting the order in the inscription. There is numismatic precedent for such an arrangement: compare the coins of Heraclius and his sons, those of Constans II, and the coins of Romanus IV Diogenes and Eudocia; but this evidence is not conclusive. Issues with three figures on a side were rare and otherwise unknown in this period; even where they occur the order of precedence is open to question. Moreover, as Grierson admits, the inscription (which is unlike that on any similar coin) does not correspond to his arrangement. I must agree with Bellinger and Morrisson, *Catalogue*, 2, p. 566, that the order of this coin is Romanus, Constantine, Christopher.

<sup>40</sup> This is the only coin which presents anything of a chronological inconsistency. Christopher is bearded in Variety V, but beardless in Variety VI. It is clear that this coin, regardless of its date, did not attempt a realistic depiction, but only a symbolic representation of the relationship between the two emperors. Christopher was fully adult by May of 921 and so, if pictured realistically, should never have appeared beardless.

in the procession for Pentecost, leaving the legitimate emperor by himself. Bellinger is correct in observing that "the constitutional position is ambiguous,"<sup>41</sup> but doubts still remain. The difficulty is removed if we view Varieties IV and VI as "companion pieces." The two coins convey the same message: Romanus is senior emperor, Constantine and Christopher are beardless junior emperors. Taken together, they express the constitutional position correctly, though they say nothing about the relationship of Constantine and Christopher. We have already advanced the hypothesis that more than one issue may have been struck at one time. There is no reason why Variety IV could not have continued after the coronation of Christopher. In any case, the two coins must have circulated together. The diversity in the die ratios and in style, however, demonstrates that Variety VI quickly became the main source of gold for normal circulation and the minting of Variety IV probably ceased. Romanos Lecapenus wished to lay the foundations for the establishment of a dynasty.

Constantine was still the second emperor in April 922.<sup>42</sup> Some time after this Romanus took the final step and made his son heir to the throne. This event cannot be securely dated, but it must not have been long after 922. As we have mentioned, Bellinger connected this second demotion of Constantine with the demand of the Bulgars in 927. We know that Christopher was third in 927,<sup>43</sup> yet in 928 the Magister Nicetas urged Christopher to rebel against his father because he was *then* third in dignity. Unless we assume that Romanus had no dynastic ambitions, waiting to elevate his son until the Bulgarians demanded his precedence and that once the Bulgarians had gone home he demoted Christopher, we must place the promotion before 927.<sup>44</sup> There is considerable evidence to support such a conclusion. Two undated chrysobulls not now extant were issued in the names of Romanus, Christopher and Constantine.<sup>45</sup> Since imperial edicts normally gave the names of all the *augusti*, these

<sup>41</sup> Bellinger, "ByzNotes: 6," p. 158 and note 36.

<sup>42</sup> This attested by the inscription of the "protimesis" novel of this date: J. and P. Zepos, eds., *Jus Graecoromanorum* 1 (Athens, 1931), p. 197.

<sup>43</sup> See Bellinger, "ByzNotes: 6," pp. 160-161.

<sup>44</sup> See Ostrogorsky, *History*, p. 273.

<sup>45</sup> Zepos, *Jus Graecoromanorum*, pp. 204-205. See also Bellinger, "ByzNotes: 6," p. 158, note 37.

laws must have been issued before the coronation of the two younger Lecapeni in December 924. We can therefore date the elevation of Christopher to the position of second emperor to the period between April 922 and December 924.

Variety VII celebrated this elevation and announced the founding of the new dynasty. The significance of this coin has not been fully appreciated. Whether or not one associates the narthex mosaic with Basil I, one must agree with Veglery that the Rex Regnantium type "was considered a palladium by the Macedonian dynasty."<sup>46</sup> With one notable exception (the "portrait" coin of Leo VI, PLATE XX, 13), this obverse had appeared on every gold coin struck for the past fifty-five years. By continuing the Rex Regnantium on his gold, Romanos Lecapenus had publicly proclaimed his support for the dynasty.

All this was changed with the nomination of Christopher as heir to the throne and the striking of Variety VII. This new coin recalled a type used by Alexander on the reverse of his gold coinage on which the new emperor, in full imperial regalia, was crowned by a saint (PLATE XX, 12). The point of Alexander's coin was obvious. Although he claimed a relationship with the Macedonian dynasty (Rex Regnantium obverse), he received his power not from his hated brother but in his own right.<sup>47</sup> The whole of his short reign bore witness to his desire to be free of the heritage of his predecessor. Romanus had a similar purpose, but was required to proclaim his independence from the previous dynasty and to establish his own legitimacy as well. The Rex Regnantium of the Macedonians disappeared. On the obverse Christ (a notable improvement over Alexander's saint) crowned Romanus, as though to announce that the favor of God had passed to the Lecapeni. On the reverse, Christopher preceded Constantine (who was still beardless) and the survival of the dynasty seemed assured.

How long Christopher remained superior to Constantine we cannot say. It may have been somewhat longer than is normally thought, although it cannot have been more than several years. Variety VII was obviously not issued in any large quantity, as only one pair of dies

<sup>46</sup> A. Veglery, "Narthex Mosaic," p. 101.

<sup>47</sup> Alexander was the first to use the title *autocrator* on his coins; see A. Musmov, "Une monnaie d'argent de l'empereur Alexandre," *Byzantion* 6 (1931), pp. 99-100.

is known to have been used in this coinage. The close similarity between the obverses of VII and VIII would also suggest that they followed each other in rapid succession, although the T in the ET of the reverse legend is of different form on the two coins. During the period of Christopher's ascendancy the mint struck silver coins (Bellinger's no. 15) in the order Romanus-Christopher-Constantine, and, as we have seen, the emperors issued at least two laws during that time.

The reason for Christopher's fall, an event noted in Variety VIII, is a mystery; the sources say nothing about it. The affection of Romanus for his eldest son and his sadness at his death in 931 indicate that Christopher had not earned the displeasure of his father. Possibly opposition, either from the people of Constantinople or within the imperial court, to the open suppression of the legitimate dynasty was so great that Romanus was forced to abandon his own plans.<sup>48</sup> He may have issued Variety VIII as a concession to this opposition.<sup>49</sup>

*January 27 – April 6, 945*

IX Obv.: +IH SXPSREXRECNANTIVM

Bust of Christ Pantocrator facing, bearded, with cross nimbus which has pellets in each arm of the cross, wearing tunic and himation, r. hand raised in blessing in the fold of the himation, in l. hand a book.

Rev.: +CONSTANTINVS AVT'CRAT'OR

Bust of Constantine facing, with long beard, wearing loros and heavy crown with cross and pendilia in r. hand globus with patriarchal cross. (PLATE XX, 9)

There was apparently no gold issued from 931 (or shortly before) until 945. This is not improbable. Variety V was struck in very large quantity and it must have been sufficient for normal circulation for some time. The message of the coins (Romanus – Christopher) was anachronistic, but the fondness of the old emperor for his son and his lack of concern

<sup>48</sup> A popular revolution, it should be remembered, restored Constantine to power in early 945. See Liutprand, *Antapodosis* V.

<sup>49</sup> Variety VIII seems to have been struck somewhat carelessly. On one die the head of Christ is bent awkwardly forward so as not to break the obverse inscription.

for dynastic politics in the years after 931 would explain his reluctance to design new issues. Moreover, the die cutters may have turned their attention to the silver, which was apparently struck in large numbers at this time (see Bellinger no. 18).

Constantine commemorated his liberation from the Lecapeni with Variety IX, which recalls the "portrait" coin of his father (PLATE XX, 13). Just as Alexander had on his silver, Constantine proclaimed his independence with the title *autocrator*, which formed a nice parallel with the Pantocrator on the obverse.<sup>50</sup> The origin of the Pantocrator type has been the subject of considerable controversy; the question is of great significance since this form of the portrait of Christ became the dominant representation for much of successive Byzantine coinage.

In the first place, we might be somewhat surprised to see the Pantocrator; we should have expected Constantine to celebrate the restoration of the legitimate dynasty by restoring the Rex Regnantium of the Macedonian house. Yet, as Grabar and Breckenridge have pointed out, the Pantocrator is probably to be seen as a segment of the Rex Regnantium.<sup>51</sup> With the exception of the placing of the hand which holds the book, the representation of the Pantocrator on the coins closely resembles the head and upper body of Christ on Type II of the Rex Regnantium. Moreover, the legend on Variety IX clearly identifies the figure of Christ as the Rex Regnantium.

The first important numismatic use of what might loosely be termed the Pantocrator type occurred on the famous issues of Justinian II.<sup>52</sup> Its earliest monumental use as the central decoration of the dome of a church probably came under Basil I.<sup>53</sup> Constantine VII was, as we know, particularly concerned with the founder of the Macedonian dy-

<sup>50</sup> For the significance of this, see G. Ostrogorsky, "Avtokrator i Samodrzac," *GlasSrpske Akad* 164 (Belgrade, 1935), pp. 95–187. There is a specimen of this coin in the collection of the ANS from which the cross of Constantine's globus has been painstakingly removed, presumably by a pious Muslim who wore the coin as a piece of jewelry.

<sup>51</sup> A. Grabar, *L'iconoclasme byzantin* (Paris, 1957), pp. 40–41; Breckenridge, *Justinian II*, pp. 48–49.

<sup>52</sup> See Bellinger, "ByzNotes: 6," p. 146 and note 22.

<sup>53</sup> Photius, *Descriptio ecclesiae novae*, in George Cedrenus, *Synopsis historiarum* 2 (ed. I. Bekker [Bonn, 1838–1839]), pp. 199–200.

nasty; it was largely through his personal efforts that such a favorable picture of Basil I has come down to us. If the Pantocrator type was as closely connected with Basil I as the full-length representation, it is not surprising that Constantine selected it as the dominant type for his new coinage.

In 1949 Blanchet suggested that the adoption of the Pantocrator type may have been influenced by the translation of the Mandyllion from Edessa to Constantinople in 944.<sup>54</sup> Bellinger rejected this view, pointing out the differences between the Pantocrator and the various representations of Christ on the Mandyllion. The relic, Bellinger noted, "showed the face, hair and beard of Christ alone, the locks very long and the whole effect entirely different from the Pantocrator whose bust and hands are essential elements of the design."<sup>55</sup> The book, which is a notable part of both the Pantocrator and the Rex Regnantium, is not to be found on the Mandyllion.

The Pantocrator obverse is indeed iconographically different from the representations of the Mandyllion, but this difference should not obscure more fundamental historical considerations. Pictures of the Mandyllion itself differed considerably, partly because the relic "apparently was very rarely to be seen without its protective cover," and copies "depended on the idea of the Christ head that prevailed in their own time."<sup>56</sup>

When the Mandyllion was transported to Constantinople in August of 944 it was received by Romanus Lecapenus and his sons. Within six months, however, the Lecapeni had fallen from power, and by the first anniversary of the recovery, Constantine VII—who was every bit the equal of Romanus I in craftiness and ability to use propaganda—had turned this event into one glorifying himself and the restoration of the legitimate dynasty.<sup>57</sup> A festival sermon, written probably for delivery on August 15, 945, detailed the legend of the relic and its return to

<sup>54</sup> A. Blanchet, "L'influence artistique de Constantine Porphyrogénète," *Mélanges Henri Grégoire* (Brussels, 1949), pp. 97–104.

<sup>55</sup> Bellinger, "ByzNotes: 5," p. 147.

<sup>56</sup> K. Weitzmann, "The Mandyllion and Constantine Porphyrogennetus," *Cahiers archéologiques* 1960, p. 167.

<sup>57</sup> Weitzmann, "Mandyllion," pp. 164–184.

Christian hands.<sup>58</sup> While the Mandyllion was being transported through Bithynia, the sermon reported, the procession encountered a man possessed by a demon. Upon being cured by the holy relic, the man shouted out: "Constantinople, take back your glory [or faith] and you, Constantine Porphyrogenitus, your imperial rule."<sup>59</sup> Art was made to serve the propaganda needs of the emperor. An icon has recently been discovered on Mt. Sinai which, according to Weitzmann, is a copy of one made just at this time. The painter of this icon, perhaps under the supervision of the emperor himself, depicted King Abgar with the features of Constantine VII. "Thus the icon was made with the same intention as the writing of the feast homily: to disseminate the idea of Constantine as the pious emperor whose spiritual concern is the collection of famous relics . . ."<sup>60</sup> The Pantocrator obverse may not have been iconographically dependent on the type of the Mandyllion, but Constantine's choice of an *imago clipeata* for the coins celebrating his assumption of supreme power may have been inspired in part by the restoration of the famous relic to Christian hands.

Bellinger has listed another variety of this coin (no. 19,) slightly different in style from Variety IX; there are no pellets in the cross of the nimbus, and in his left hand (not visible in Variety IX) Constantine holds the *anexikakia*. The size of the flan also appears to be somewhat larger. It is difficult to know what to do with this coin, especially since only one specimen is known to exist.<sup>61</sup> It may have been a trial piece for the issue which followed.

Aside from this peculiar coin, there are at least two stylistic varieties of the issue. On one, the nimbus is a solid line and the pellets in the

<sup>58</sup> E. von Dobschütz, ed., *Christusbilder* (Leipzig, 1899), pp. 29–107.

<sup>59</sup> Dobschütz, *Christusbilder*, p. 74.

<sup>60</sup> Weitzmann, "Mandyllion," p. 184. If Grierson is correct in placing a "pattern solidus" in the period between the death of Christopher and the overthrow of Romanus (*DOCat* 3, pp. 534, 548, no. 9), it may be that Romanus himself considered issuing a coin with a bust of Christ—perhaps to commemorate the return of the Mandyllion. If so, the revolt of his sons prevented him, and the execution of the idea was left to the capable Macedonian.

<sup>61</sup> In "L'influence artistique," p. 99, Blanchet published a photograph of a coin which seemed to be of the same type. It did not, however, appear in the catalogue of the Bibliothèque Nationale published by Morrisson. The single specimen known to me is in the Dumbarton Oaks collection. See *DOCat* 3, pp. 535, 550–551, nos. 12–13.

cross are enclosed by two lines. On the other, the nimbus is made up of a series of dots, while the arms of the cross are made with single lines. There are also stylistic differences in the rendering of the faces on both the obverse and the reverse.

*April 6, 945 – November 9, 959*

- X**      Obv.: Rex Regnantium, Type II  
           Rev.: CONSTANTINOCEROMANAVSBR  
           To l., bust of Constantine facing, bearded, wearing loros and crown with cross; to r., smaller bust of Romanus II facing, beardless, wearing chlamys and crown with cross; patriarchal cross, hand of Constantine higher on the shaft. (PLATE XX, 10)
- XI**     Obv.: Christ Pantocrator, as IX  
           Rev.: Same as X.

On April 6, 945 Constantine crowned his son as emperor. A coronation issue, complete with Type II obverse, commemorated this event (X). XI supplied the regular coinage for the period of the joint reign of Constantine and his son. This latter coin combined the obverse type of IX (Pantocrator) with the reverse type (busts of Constantine and Romanos) of the coronation issue. XI demonstrates the same diversity of style which characterized IX. On some coins the nimbus is solid and the arms of the cross are made with two parallel lines, while on others the nimbus is made by a series of small dots. On some dies, which are otherwise distinct in style, there are only two pellets in the arms of the cross. On the obverses of IX and XI there is sometimes a dot or a cross (or some other mark) at the end of the obverse inscription. Such similarities between the two issues suggest that the same workshops or die-cutters worked on both issues. It is even possible that IX was not suspended when Romanus II became emperor; it may have been struck along with XI. The strange markings<sup>62</sup> and the differences in

<sup>62</sup> On the "secret marks" on the bronze of this period see D. M. Metcalf, "Provincial Issues Among the Byzantine Bronze Coinage of the 11th Century," *HBN* 1962, pp. 25–32; and P. Grierson, "The Gold and Silver Coinage of Basil II," *ANSMN* 13 (1967), pp. 168–170. See also *DOCat* 3, pp. 535–536, 551–553, nos. 14–15.



style invite further study and analysis. Such work may allow the chronological arrangement of these issues and shed new light on the workings of the Byzantine mint (or mints?). The evidence of die ratios indicates that IX, X and XI were struck in very large numbers.

We have designated Varieties II, V, and X as coronation (or at least special) issues. They were different from the regular issues in composition and style. A look at Variety II, however, suggests another possible difference. This coin stands out as noticeably larger than the other issues, both in size of flan and in size of the die used to strike it (a more reliable index). In the late Roman and early Byzantine periods it was customary to strike special issues either as multiples of the regular coinage or at least on a somewhat larger scale. We think, immediately of the large multiples of the fifth and sixth centuries, which clearly could not have been used for circulation, but a closer parallel would be the marriage solidus of Anastasius and the large silver of Phocas.

Table II on page 115 seems to lend support to the hypothesis of larger size for special issues. It shows first that the weight of the coins (and, one might add, their fineness) did not change throughout this period. Nevertheless, the coins which were probably struck to commemorate an imperial coronation or to promote dynastic interests (B, C, E, and F) appear to be larger than the regular issues. Figures in such an investigation can be misleading, especially when the purpose of the imperial mint master was not to aid future numismatists but to make the ceremonial coinage even more "special." A visual check of the coins is more valuable than any measuring. Moreover, averages can be deceiving. If an issue was to be larger in size, averages would be nearly meaningless; all of the coins had to be within a certain range. Within the limitations imposed by the few surviving specimens, Table III attempts to avoid this danger. Wherever possible, it indicates the range of the size of the die found in each issue.

Variety II was clearly struck by very large dies. It must have stood out in any random collection of coins of this period. But Varieties V and X are not as large as one might expect. Variety X, in fact, is smaller than most of the coins struck during this time. Variety V is likewise hardly larger than its predecessor and one coin of the latter is even larger than one coin of the coronation issue. Nevertheless, we should remember that at times when gold was being struck fairly regularly the coins did

Table II

<i>Issues</i> <sup>63</sup>		<i>Specimens examined</i>	<i>Average wt (gm.)</i>	<i>Average flan size (in.)</i> <sup>64</sup>	<i>Average die size (in.)</i> <sup>65</sup>
A.	Basil I	1	4.33	.765	.727
B.	Basil, Eudocia, Const.	1	4.49	.823	.755
C.	Basil and Const.	4	4.50	.797	.748
D.	Leo VI	3	4.34	.777	.723
E.	Leo & Const. VII	3	4.41	.832	.780
F.	Alexander	2	4.46	.835	.082
I.	Zoe & Const.	1	4.34	.793	.768
II.	Const. & Romanus	3	4.39	.867	.806
III.	Const. & Romanus	2	4.42	.787	.770
IV.	Romanus & Const.	4	4.41	.795	.774
V.	Romanus, Const., Christof.	2	4.41	.808	.779
VI.	Romanos & Christopher	8	4.43	.815	.750
VII.	Christopher & Const.	1	4.47	.830	.797
VIII.	Const. & Christof.	2	4.34	.811	.774
IX.	Constantine	2	4.39	.803	.717
X.	Cont. & Romanus II	2	4.35	.782	.754
XI.	Const. & Romanus II	12	3.37	.789	.716

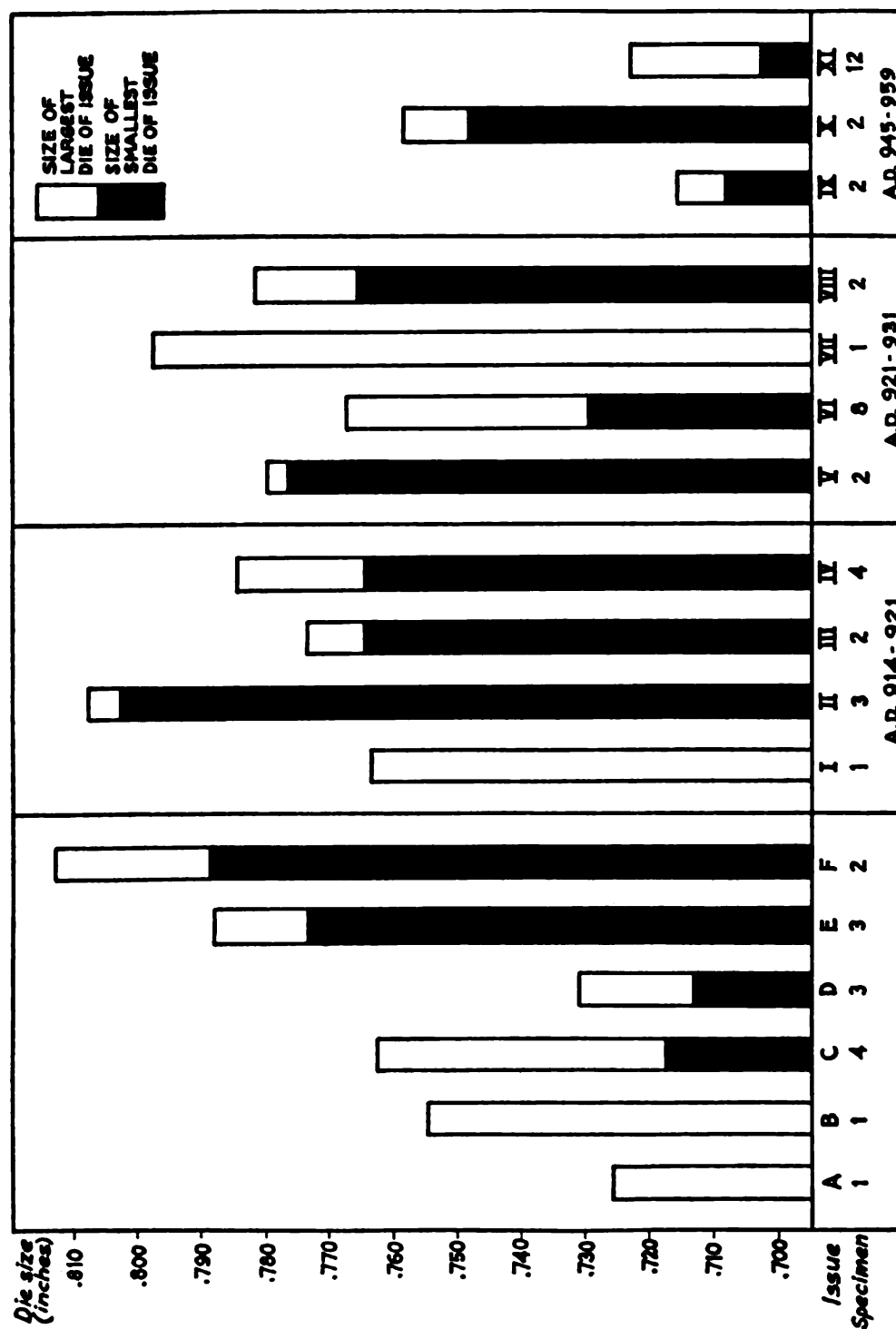
not circulate for long periods of time; they would be melted down and re-struck whenever they came into the imperial treasury. Therefore, the size of the dies used in any one issue should only be compared with those of contemporaneous issues. Throughout the period in question—from 914 to 959—the size of the dies used in striking gold seems to have diminished. From 914 to 921 the size of the regular coinage was about .770 inches. In 921 the size of the dies shrank to .750, and by 945 the size of the dies further declined to .717 inches. Varieties V and X should be compared with Varieties VI and IX and XI respectively; when this

<sup>63</sup> The coins used in this study are all in the cabinets of the ANS, except for the two specimens of Variety V, which are at Dumbarton Oaks (*DOCat* 3, pp. 534, 547–548, no. 8).

<sup>64</sup> The flan size was taken at its maximum for each coin by using a micrometer accurate to .001 in.

<sup>65</sup> The die size (from the inside of the border) was measured vertically and horizontally for each coin and these two figures were averaged.

Table III



is done these issues stand out as slightly larger, though the small number of coins available for study makes these conclusions only tentative.

This raises the problem of what to do with Varieties VII and VIII. These issues were clearly larger than the regular coinage and their obverse sets them apart from all other issues; the small number of dies used in their striking suggests that they cannot have been issued in any large quantity. Yet they were not directly connected with an imperial coronation, and on the basis of the small number of coins examined Variety VIII is considerably smaller than its predecessor. In the absence of further knowledge, it is perhaps best to call them "special issues" and ascribe the decline in the size of Variety VIII to the general lack of care which marked its striking.<sup>66</sup>

It is generally recognized that Byzantine gold coinage was a regular vehicle for the transmission of dynastic propaganda, and the issues of this period were certainly designed largely for this purpose. The threat posed by Simeon of Bulgaria and his claims on the imperial throne was, however, one of the most pressing concerns of the 910's and 920's and one would expect to find some reflection of this danger on the coins, especially since there was considerable controversy about Symeon's assumption of the title of "emperor of the Romans."<sup>67</sup> Nevertheless, if we had to rely on numismatic evidence alone, we should know nothing about this danger to the Byzantine state. There is not even an increased emphasis on the title *Basileus Romaion* during the period in question. Perhaps it was simply not traditional to use the Roman coinage to reply to the claims of "barbarians;" the mere fact that Romanus and Constantine struck gold in Constantinople was enough to demonstrate that they were the rightful rulers of the *oikoumene*.

In conclusion, the gold coinage of Constantine VII provides us with important information on a variety of points. The most significant of these concerns the changes among the members of the imperial college in the mid-tenth century. The coins here serve largely to supplement the evidence of the chronicles and the legal texts, although they do show how various emperors used propaganda to advance their dynastic in-

<sup>66</sup> See note 49 above.

<sup>67</sup> That Symeon was interested in imitating the types of Byzantine gold coins is shown by the lead seal mentioned by Bellinger, "ByzNotes: 6," p. 166.

terests. In general, our analysis of the coinage reveals a situation slightly less confused than is often assumed. Earlier studies had complicated the rise and fall of the Lecapeni by claiming two distinct periods in which Christopher Lecapenus held precedence over the legitimate Macedonian. Our analysis, however, shows that Romanus made only one unsuccessful attempt to oust Constantine from the succession.

In this study we have suggested that some gold coins were special, probably coronation, issues. These were perhaps designed to serve as presents for members of the court and the imperial service, although they would have circulated alongside the regular issues of gold. Finally, our analysis requires a reassessment of the personalities of Romanus I and Constantine VII. Following the Macedonian historiographical tradition one normally sees Romanus Lecapenus as a scheming, clever, power-hungry autocrat who narrowly missed removing the young and innocent Constantine from his rightful place. Romanus undoubtedly was ambitious, but the coins cannot be used to blacken his reputation further. Instead we see a ruler consciously attempting to advance the fortunes of his family, working against the adversities of personal disappointment and a growing sentiment of dynastic legitimacy. Constantine, on the other hand, was not the disinterested scholar he is often said to have been. As much as Romanus, he was aware of the methods of propaganda, and he carefully used the coins to enhance his own position and that of his family.

## SOME SASANIAN CLAY BULLAE AND SEAL STONES

(PLATES XXI-XXII)

GERD GROPP

The American Numismatic Society houses a collection of five Sasanian bullae and 42 seal stones, 22 with inscriptions, which are published here for the first time.<sup>1</sup>

In Section I, the catalogue, there is a short description of each seal or bulla, with information on owner, material, shape and size. In Section II, the types of bullae and seal stones and their functions are described in a broader context. In Section III the iconography is discussed; in Section IV the inscriptions are examined.

This collection is, of course, very small in comparison with great collections such as those of the Hermitage (813 seals) or the British Museum (more than 1000 pieces), but it happens to represent a cross-section of practically all the various types, including one of the very rare "official" seals.

### I. CATALOGUE

#### A. Clay Bullae

1. Holes for two cords, two sealings on surface:
  - 1.1 Humped bull, marginal decoration, no inscription  
Oval, 1.4 × 1.1 cm.
  - 1.2 Crouching ibex, no inscription  
Oval, 1.1 × 0.9 cm.
- ANS. Gray baked clay, 3.5 × 3.5 × 1.5 cm.
2. Two holes for cords, one sealing on surface:  
Walking camel, no inscription  
Circular, diam. 1.3 cm.
- ANS. Dark brown baked clay, 2.7 × 2.9 × 1.2 cm.

<sup>1</sup> Most of the ANS seals were presented to the museum by Edward T. Newell, but the Tiede Andres collection of coins and seals is on temporary deposit at the ANS.

## 3. Two holes for cords, one sealing on surface:

Vine scroll and mongoose, inscription 1: *prosperity*Oval,  $1.1 \times 0.8$  cm.ANS. Pink baked clay,  $2.3 \times 2.5 \times 1.3$  cm.

## 4. No holes for cords, no sealing.

ANS (not illustrated). Pink baked clay,  $3.3 \times 3.3 \times 0.8$  cm.

## 5. Two holes for cords, eight sealings by five seals:

5.1 "Official" seal, three lines of script, inscription 2: . . . *the magi administration . . . district . . .*

Circular, diam. 1.8 cm.

5.2 Double bust, inscription 3: *Mahrin* and *Huwasp*

Circular, diam. 1.4 cm.

5.3 Tree, no inscription

Upright rhomboid,  $1.0 \times 0.4$  cm.

5.4 Twice. Monkey, no inscription

Circular, diam. 0.4 cm.

5.5 Three times. Winged genius with ring and trailing scarf, crescent moon, no inscription.

Upright rectangle,  $0.6 \times 0.4$  cm.Andres. Dark brown clay,  $4 \times 4.5 \times 1.9$  cm.**B. Seal Stones in the Form of a Dome**1. "Device," inscription 4: *The magi Hormazd. May the fire Farn- (bag) in Kariyan live!*ANS. Red striped agate, circular,  $2.1 \times 2.1 \times 1.7$  cm.2. "Official" seal with script only, inscription 5: *The magi administration of Zarn . . . , Hamadan, district of Sh. . .*ANS. Yellow agate, circular,  $1.9 \times 1.9 \times 1.5$  cm.3. Standing ram, inscription 6: *Mahroz*.ANS. Circular, white translucent stone,  $1.8 \times 1.8 \times 1.1$  cm.

## 4. Combat between hunter and bear, no inscription.

ANS. Black stone (hematite?), circular,  $1.4 \times 1.4 \times 1.1$  cm.5. Woman with braids, inscription 7: *Farnbag*.ANS. Yellow agate, circular,  $1.35 \times 1.35 \times 1.1$  cm.

## 6. Standing goat, no inscription.

ANS. Yellow agate, oval,  $1.15 \times 0.95 \times 1.3$  cm.7. Goose with spread wings, inscription 8: *May the fire bring him luck*.ANS. Striped red agate, circular,  $1.2 \times 1.2 \times 0.8$  cm.

8. Standing griffin with scarf, inscription 9: *righteousness*.  
ANS. White translucent stone, circular,  $0.9 \times 0.9 \times 0.9$  cm.
9. Standing ram with scarf, inscription 10: *Farrahdāt*.  
ANS. Yellow striped agate, circular,  $1.1 \times 1.1 \times 1$  cm.
10. Crouching griffin, inscription 11: *Spand*.  
ANS. Green stone, circular,  $1.1 \times 1.1 \times 0.8$  cm.
11. Reclining ram with scarf, inscription 12: *Purak, the magi, son of Purak*.  
Andres. White agate, circular,  $1.6 \times 1.6 \times 1.3$  cm.
12. Reclining sphinx with beard, no inscription.  
Andres. Black stone (hematite?), oval,  $1.5 \times 1.4 \times 1.3$  cm.
13. Reclining stag, head bent back, scarf around its neck, "device" over its back, no inscription.  
Andres. Green stone, circular,  $1.3 \times 1.3 \times 1$  cm.
14. Standing lion, inscription 13: *the village hill* or *Dastegerd gari* (?)  
Andres. White agate, circular,  $1.2 \times 1.2 \times 1$  cm.
15. Reclining antelope, no inscription.  
Andres. White agate or moonstone, oval,  $1.1 \times 1 \times 1$  cm.
16. Standing bird, "device," moon, no inscription.  
Andres. Carnelian, circular,  $0.7 \times 0.7 \times 0.6$  cm.
17. "Device," star, moon, no inscription.  
Miles, Isfahan 1936. Bluish agate, circular,  $1.3 \times 1.3 \times 1$  cm.
18. Running hare, no inscription.  
Miles, Teheran 1936. Green stone, circular,  $1.1 \times 1.1 \times 1$  cm.
19. Male bust on wings, inscription 14: *Wardan*.  
Miles, Teheran 1936. White agate, upright oval,  $1 \times 0.8 \times 1$  cm.

#### B'. Seal Stone in the Form of a Flat Dome

1. Reclining ram, no inscription.  
Miles, Teheran 1936. Carnelian, oval,  $1.4 \times 1.5 \times 0.8$  cm.

#### C. Seal Stones in the Form of Undecorated Ellipsoids

1. Lion, star and moon, inscription 15: *the victorius Ardashir*.  
ANS. Whitish agate, oval,  $1.5 \times 1.9 \times 2.3$  cm.
2. Crouching humped bull, no inscription.  
ANS. White agate, oval,  $1.2 \times 1.8 \times 1.8$  cm.
3. Standing stag and tree, no inscription.  
ANS. Dark red agate, oval,  $1.2 \times 1.5 \times 1.7$  cm.
4. Tree-like emblem, no inscription.  
ANS. Yellow agate, upright oval,  $1.7 \times 1.4 \times 1.8$  cm.



5. Bust of stag on wings, medallion frame, no inscription.

ANS. White agate, upright oval,  $1.6 \times 1.3 \times 1.6$  cm.

6. Reclining griffin, no inscription.

Miles, Teheran 1936. Brown-white agate, oval,  $1 \times 1.4 \times 1.35$  cm.

#### C'. Seal Stones in the Form of Decorated Ellipsoids

1. "Device" with cross, inscription 16: *Vohunam*, framed by two crosses indicating that the owner of the seal was a Christian.

ANS. Carnelian with iron inlay, upright oval,  $1.5 \times 1.3 \times 1.7$  cm.

2. Goddess with ring of investiture, inscription 17: *I, the goddess, ordered.*

ANS. White agate, upright oval,  $1.8 \times 1.5 \times 1.65$  cm.

3. Hand, no inscription.

ANS. Rock crystal, upright oval,  $0.9 \times 0.7 \times 1$  cm.

4. "Device" in medallion frame, no inscription.

ANS. Carnelian, circular,  $0.9 \times 0.9 \times 1.1$  cm.

5. Eagle, no inscription.

Andres. Rock crystal, upright oval,  $1.2 \times 0.75 \times 1.5$  cm.

#### D. Seal Stones in the Form of Bezels

1. Reclining stag with scarf, no inscription.

ANS. Carnelian, oval,  $1 \times 1.2 \times 0.3$  cm.

2. Seated woman with child, inscription 18: *Refuge in God.*

ANS. Carnelian, upright oval,  $1.3 \times 1.2 \times 0.3$  cm.

3. Reclining ram, tree, no inscription.

ANS. Carnelian, oval,  $0.8 \times 1 \times 0.3$  cm.

4. Male bust on wings, inscription 19: *Dalgawishnak, the weapon of Mithra.*

ANS. Carnelian, upright oval,  $1.4 \times 1.2 \times 0.35$  cm.

5. Winged horse, no inscription.

ANS. Carnelian, oval,  $1.2 \times 1.3 \times 0.2$  cm.

6. Two crouching gazelles, neck to neck, heads reguardant, inscription 20: *sage and generous.*

ANS. Carnelian, oval,  $1.2 \times 1.4 \times 0.25$  cm.

7. Crouching lion, medallion frame, no inscription.

ANS. Carnelian, oval,  $1.2 \times 1.4 \times 0.25$  cm.

8. Heraldic eagle, no inscription.

ANS. White-red agate, upright oval,  $1.3 \times 1 \times 0.25$  cm.

9. Crouching ram with scarf, inscription 21: (Parthian) *of handsome body, wisdom and (god)fearing*.  
ANS. Lapis lazuli, oval, 1.3 × 1.5 × 0.2 cm.
10. Bird of prey over reclining ram, no inscription.  
Andres. Carnelian, upright oval, 1.4 × 1.1 × 0.35 cm.
11. Naked man holding two "devices," inscription 22: . . . *prosperity*.  
Andres. Carnelian, upright oval, 1.1 × 0.8 × 0.3 cm.

## II. THE FORMS OF BULLAE AND SEALS

### A. Bullae

Since in the near future catalogues of the large collections found at Takht-e Sulaiman and Qasr-e Abu Nasr will be published and will give us a more solid basis for study, only a few observations on the different forms of Sasanian clay bullae need be made here.

Frye distinguishes "between bullae or stamped pieces of clay attached to documents, and clay sealings attached to goods and wares . . . the bullae in Sasanian times were small pieces of fine clay usually with only one impression on them, whereas the clay sealings were large pieces of clay usually with many seal impressions on them."<sup>2</sup>

Bullae fitting Frye's narrower definition are found attached to many documents of Parthian and Sasanian times. Frye published one example from the Mazda collection in Teheran where the lump of clay is attached to the document through a slit in the leather.<sup>3</sup> In the same way the sealings seem to be attached to some scraps of parchment of which I obtained photographs in Teheran some two years ago. The documents are written in the very difficult cursive Pahlavi known from papyri in Egypt.

However, there is quite a different form of sealing used for documents, both Parthian from Awroman, Kurdistan (1st century B.C.) and late Soghdian from Gory Mug, Russian Tadjikistan (8th century A.D.).

<sup>2</sup> Richard N. Frye, "Sasanian Seal Inscriptions." *Beiträge zur alten Geschichte und deren Nachleben. Festschrift für Franz Altheim zum 6.10.68* (Berlin, 1970), vol. 2, p. 79.

<sup>3</sup> Frye, *Festschrift* . . . Altheim, p. 84 and fig. 15.

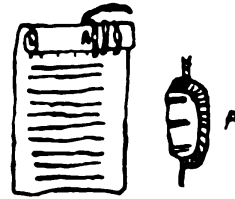


Fig. 1

Figure 1 reproduces a drawing by Minns of parchment No. 2 of Awroman.<sup>4</sup> The text was repeated once on this kind of contract and small holes were pierced in the parchment on the dividing line between the two texts. Then the upper part was rolled up very tightly and bound together by a cord, using the small holes in the parchment. This cord was sealed with several clay bullae. Similar parchments with sealed cords are to be seen in texts B 4, A 2 and Nov 4 of the facsimile edition of the Gory Mug documents. B 4 still has the upper part bound together, A 2 was opened by tearing the parchment and preserving the cord and bulla, and Nov 4 shows only fragments of the cord. A good photograph of a bulla from Gory Mug is published by Freiman.<sup>5</sup>

It is obvious that the two holes on the back of most bullae are the traces of the cord going through. Consequently, we can surmise that most of the large bullae were also used for sealing contracts. The bullae visible on the Awroman and Mug documents are of the same size as Nos. A.1–A.3 of our collection and bear only one sealing each, but there may have been much larger parchment scrolls, for which heavier, double-sized bullae like A.5 were used.

Frye observes that “the majority [of the bullae] have one large ‘official’ seal impression, one large ‘personal’ seal impression and one to ten impressions of small seals of ‘witnesses’” (like A.5). He proposes that the “official” seal was used by the tax collector, but the “personal” seal by the owner of the taxed goods.<sup>6</sup> My suggestion is that both the large seals may belong to the dignitary sealing the document, one being his

<sup>4</sup> Ellis H. Minns, “Parchments of the Parthian Period from Avroman in Kurdistan.” *JHS* 35 (1915), p. 22.

<sup>5</sup> A. A. Freiman, *Sogdiiskii Sbornik* (Leningrad, 1934), pls 2, 16 and 155 and p. 34, fig. 1 and CII, II, III (Dokumenty S Gory Mug), 1963, pl. 2, 16, 55,

<sup>6</sup> Frye, *Festschrift . . . Altheim*, pp. 79, 80.

seal as functionary of the king, the land, or the magi administration, the other his personal seal of identity and name.

The use of official seals by high dignitaries can be traced back to the Treasury and Fortification Tablets of Achaemenid times when the treasurer of Persepolis sealed documents with the royal seal cylinder bearing the name of Darius or Xerxes.

The custom of sealing documents, as preserved in Sasanian times, seems to have its sources in the Achaemenid and even earlier Assyrian period. It is connected with the role the Arameans then played in the administration. Greenfield observes that the "royal scribe" Ahiqar was also the "royal seal bearer" of the Assyrian kings Sennacherib and Esarhaddon, who wrote and sealed the official documents of the court.<sup>7</sup> Even at this early date the Arameans may have substituted papyrus or parchment for clay, preserving the old Mesopotamian custom of the "double document," a clay tablet with the text of the treaty enveloped by an outer coat of clay on which the text was repeated. In the papyri, the inner sealed part of the text was used as security and the open lower part could always be read. The Sasanians' fear of breaking a seal<sup>8</sup> seems to point to a more ritualistic character for these sealed parts of the documents; they may have felt it ominous to violate such a sealing, for all the parchments and papyri found were unbroken.



Fig. 2

<sup>7</sup> Jonas C. Greenfield, "Studies in Aramaic Lexicography I." *JAOS* 82 No. 3 (July-Sept, 1962), pp. 291, 298.

<sup>8</sup> Frye, *Festschrift . . . Allheim*, p. 78.

The Samaria papyri, sale documents from the end of the Achaemenid dynasty, were also found unbroken.<sup>9</sup> The inner part of each document was tied by seven cords, each one sealed separately (Figure 2). Some of the bullae which measure about an inch in diameter, are shown by Freedman and Greenfield.<sup>10</sup>

The use of clay for the bullae may date from Assyrian times. Formerly a writing surface, clay survived as a sealing material to the end of Sasanian times.

#### B-D. Seal Stones

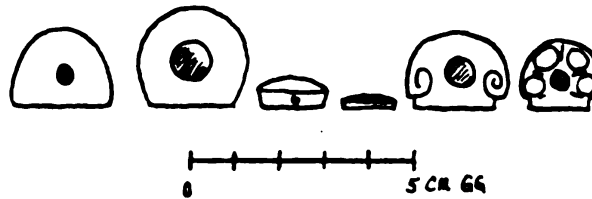


Fig. 3

The forms of seal stones are illustrated by drawings in Bivar and Horn.<sup>11</sup> The large collections in London and Berlin have a greater range of types than does the collection at the ANS. In addition to the most common forms of B (domes, conoids, hemispheres), C and C' (decorated and undecorated ellipsoids, rings), and D (bezels, flat ovals), they have cabochons, irregulars, stone rings, and mounted rings with bezels. Some pieces in London and Berlin show that the domed and ellipsoid stones were pierced with an iron or bronze ring. Part of the iron is preserved in C'.1, which is similar to Berlin V A 2158.<sup>12</sup> Stone rings like those in London, made from one piece of Carnelian with a hole large enough to

<sup>9</sup> Frank Moore Cross, "The Discovery of the Samaria Papyri." *The Biblical Archaeologist* 25, No. 4 (1963), p. 115, fig. 3.

<sup>10</sup> David Noel Freedman and Jonas C. Greenfield, *New Directions in Biblical Archaeology* (New York, 1971), figs. 37-39 (here, Figure 2).

<sup>11</sup> A. D. H. Bivar, *Catalogue of the Western Asiatic Seals in the British Museum. Stamp Seals II: The Sasanian Dynasty* (London, 1969), pp. 142 ff. Paul Horn and Georg Steindorff, *Sasanidische Siegelsteine (Mittheilungen aus den Orientalischen Sammlungen, Heft 4, Königliche Museen zu Berlin 1891)*, pp. IV-V.

<sup>12</sup> Horn and Steindorff, *Sasanidische Siegelsteine*, p. IV.

fit on a finger, were found during excavations by the German Archaeological Institute in Bastan, Azerbaijan, in an early Armenian context (5th century A.D.), but they have no engravings.<sup>13</sup> Our type B' is related to Bivar's form FA 5, a derivative of the scarab.<sup>14</sup>

The sizes of the stones differ widely, every type from B to D ranging from large seals with surfaces of about 2 cm. diameter to small ones of only 0.2 cm. diameter. Leningrad has pieces of much larger size, most of them portraits of dignitaries. The stones at the ANS are agate, carnelian (especially favored for bezels), rock crystal, lapis lazuli, green stone, hematite and a white translucent stone. Translucent stones are preferred.

It is not easy to reconstruct the form of the stone from its impression on a bulla. Stones with circular engravings usually have a dome form, but this is not always the case. Mrs. Prudence Harper has observed impressions of the ring mounting next to bezels on some bullae (compare A.3).

### III. ICONOGRAPHY

#### 1. Forms of Composition

Since the general features of Sasanian seal iconography have been satisfactorily dealt with by Erdmann,<sup>15</sup> Horn and Steindorff, Bivar and Lukonin, only a few brief remarks are called for here. The form of the surface is usually circular or oval, either upright or horizontal, but there are also less common forms such as rhomboids or rectangles (A.5.3, A.5.5). There is no special preference for upright or horizontal compositions; in the ANS collection, the horizontal compositions occur somewhat more often than the upright (16:14). There is a tendency to frame a design, either by a band of dots or by an inscription; of 51 seals, 22 have no frame, 22 have inscriptions and 7 have dotted frames.

Most seals have designs of one figure only, but there are some pieces with composite groups. In the ANS collection of 51 seals, there are ten

<sup>13</sup> Wolfram Kleiss, "Ausgrabungen in der urartäischen Festung Bastam (Rusahinili) 1969." *Archäologische Mitteilungen aus Iran*, N.S. 3 (1970), p. 51, pls. 30-32.

<sup>14</sup> Bivar, *Catalogue*, p. 144.

<sup>15</sup> Kurt Erdmann, *Die Kunst Irans zur Zeit der Sasaniden* (Berlin, 1943), pp. 110-115.

such group compositions, which differ widely in structure. There are some compositions with a dominating central figure, to which are added one or two small subordinate designs, such as star and moon (B.17, C.1), or a small tree (D.3, B.6, 3.C, B.16). On the other hand, an animal is added on the margin of a vine scroll on A.3, so that we cannot always say more importance is given to animals than to flora.

All these compositions may be considered evidence of *horror vacui*, but there is a slight difference between them; compositions such as B. 17 and A. 3 have an "heraldic," static structure, while other structures show motion in the field.

The same difference between heraldic, undynamic structures and motion may be observed in the four compositions with two similar-sized figures. The two gazelles of D.6 are motionless, neck-to-neck, but regardant, so that there is no correlation between them. On the other hand, the combat between hunter and bear on B.4 shows a movement to the left with the direction of the lance piercing the beast and pushing it back, and with the forward-thrust head of the hunter. The upraised paw of the animal is too weak a movement to suggest movement in the other direction.

The composition of D. 10, an eagle standing over a kneeling ram, which might also have been meant as a combat scene, lacks the spirit of combat. There are only two motionless animals; the relation is given by position, not motion. Seal A.5.2 is composed of two busts looking in the same direction, one overlapping the other. A bust is a motionless heraldic form in itself and no motion is created by doubling.

The analysis of composition structures above shows clearly that the Sasanian seal designs are generally heraldic in tone, and that there is only rarely a spirit of motion such as we find in B.4. The preference for framed compositions points in the same direction, the isolation of an individual figure.

## 2. Description of the Seal Designs

The figures depicted on the seals may be classified in several groups.

### a. Abstracts

In the collection at the ANS are two seals entirely filled with script, which Frye would call "official" seals (A.5.1, B.2). They are composed

of an inscription of two lines in the central field and a marginal inscription of one line. This type of "official" seal is by far the most common, but one also finds in the Foroughi collection seals with only one central line, or some lacking the marginal line.<sup>16</sup> Since the main problems of these seals are epigraphic, they will be dealt with in Section IV.



Fig. 4

The second group of abstract designs are called, "devices" by Bivar.<sup>17</sup> Four seals in the ANS collection show "devices" in the central field; four other "devices" form additional features on other seals.

C'.1 shows a Christian cross with volutes on its stem, standing on a base with two curling pendants. Two small crosses framing the surrounding inscription emphasize the Christian character of this seal. The cross with volutes is known from several Nestorian monuments which I have compared with the Madras cross of southern India.<sup>18</sup> Other cross devices are preserved on seals in Leningrad and London<sup>19</sup> but lack the volutes on the stem.

Devices formed with the crescent moon and cardial forms (B.17, C'.4) were analyzed by Bivar under the heading NK. Both have the same base as the cross device of C'.1, but now with upright curls at its ends. It is significant that on B.17 the two wing-like projections under the crescent have different forms; the projection to the left is rounded, that to the right is pointed. These two projections may be signs or script,

<sup>16</sup> Richard N. Frye, "Sasanian Clay Sealings in the Collection of Mohsen Foroughi." *Iranica Ant* 8 (1968), pl. 26, fig. 12, pl. 27, figs. 20, 21, pl. 28, fig. 25; pl. 25, fig. 9, pl. 30, fig. 36.

<sup>17</sup> Bivar, *Catalogue*, p. 129.

<sup>18</sup> Gerd Gropp, Die Pahlavi-Inschrift auf dem Thomaskreuz in Madras, *ArchMitt aus Iran*, N. S. 3 (1970), p. 270.

<sup>19</sup> A. I. Borisov and Vladimir Lukonin, *Sasanidskii gemmy* (Leningrad, 1963), illustrations 195, 197. Bivar, *Catalogue*, p. 110.



so that this device might be readable, as were those published by Menasce.<sup>20</sup> C'.4 is very similar to Bivar's category NG 2.

The device on B.1 is classified by Bivar as a knot device; he found this same device as a subsidiary feature on seal HD 4,<sup>21</sup> together with a large bird, unfortunately without an inscription. It should be added here that the two devices found in the inscription of Meshkinshahr had one pendant curl hanging from their bases (see Fig. 4).<sup>22</sup>

*b. Human Figures*

The three busts of the ANS collections are mounted on wings or a wing-like ornament. Figure 5 shows the various forms of busts.<sup>23</sup>



Fig. 5

<sup>20</sup> Jean-Pierre de Menasce, S.J., "Déchiffrement de motifs alphabétiques de l'époque sasanide." *Bulletin de l'Institut Français d'Archéologie Orientale* 59 (1960), pp. 309-314.

<sup>21</sup> Bivar, *Catalogue*, pp. 113, 129.

<sup>22</sup> Gerd Gropp, "Die sasanidische Inschrift von Meshkinshahr in Azarbaljan." *ArchMitt aus Iran*, N.S. 1 (1968), pp. 149-158.

<sup>23</sup> Ernst Herzfeld, *Paikuli. Monument and Inscription of the Early History of the Sasanian Empire*. 1 (Berlin, 1924), p. 9.

The wings with feathers turned outward and down of B.19 and D.4 are obviously those of an eagle, the royal bird, related to the deity of victory, Verethragna-Bahram. The feathers of seal A.5.2 point upright, like those of BN Paris and Brit. Mus. 628. This is a floral design composed of severed palmettes and a vine scroll. Note also the second vertical row in Fig. 5.

The heads on B.19 and D.4 wear beards and their hair is treated in the same way, gathered in a scroll framing the forehead and ending well over the shoulders. The two overlapping heads of A.5.2 are both without beards and the hair falls upon the shoulder, where it is bound in a knot.

Seal A.5.5 depicts a small winged genius, wearing the ring of victory with a scarf. The legs of the genius are bent to indicate that he is flying. The direction of the scarf shows him to be upright. One cannot turn the seal horizontally, in the way such *victoriae* are generally seen on the rock reliefs of Bisotun or Bishapur II.

The legs of the small naked figure on D.11 are turned to the right, the head is frontal. In his outstretched hands this tiny man holds two "devices," from which bands of script extend to the bottom.

The combat of hunter and bear was discussed at the beginning of this section. It is the only seal in the collection depicting motion. The forms are treated rather roughly, parallel lines making the figures appear more like a drawing than a relief.

All three women on seals B.5, D.2 and C'.2 wear braids falling down their backs. Their long gowns with bell-shaped skirts are folded. The woman on B.5 raises her left hand in adoration; her right hand is bent in front of her waist. On D.2 we see a mother with an infant on her lap, its legs stretched to the right. The woman is sitting, but no chair is shown. From the inscription it may be guessed that C'.2 is the representation of a female deity. In her right hand is the twisted-metal ring of investiture. Her left hand hangs at her side. Over her shoulder are flames, a further proof that the figure is a deity, though the inscription does not indicate which deity is meant.

Seal C'.3 has a roughly drawn hand with thumb and first finger overlapping. The lively curve of the fingers indicates an able designer who may be excused for his mistake in view of the difficulties of cutting rock crystal. The motif of a hand is common on Sasanian seals; it seems to stand for an oath given by impressing the seal.

*c. Animals*

The collection at the ANS shows a representative cross-section of the world of animals which are usually found on Sasanian seals: lion, ram, ibex, goat, gazelle, stag, humped bull, camel, hare, monkey, mongoose, eagle, vulture, goose and pigeon. These animals are represented standing, walking, kneeling, crouching or reclining. Usually they are looking right, but there are exceptions; the ram on B'.1 is turned to the left and the heads of the stags on D.1 and B.13 are turned back.

The three lions are very different in style. C.1 is a remarkable piece of art; the powerful animal walks with a wide stride, the left foreleg bent, and the mane individually treated on head, belly and legs. In comparison, B.14 is crude in style; the lion's legs are stiff and unnatural and head and belly are simplified to rounded forms. Still cruder is the crouching lion of D.7, his mane indicated by parallel dashes.

The seven rams also show a wide range of different stylistic treatment. The ram of B.3 with its short legs and its head bent back, bearing magnificent horns, is quite lively, but its belly is far less naturalistically treated than that of the lion on C.1. The style of this seal is nearer to that of the lion of B.14. In addition, the kneeling rams on B.11, D.9, and D.3 are stylized to simple forms, but the legs of B.11 are placed rather naturally, while those of the other two are bent schematically. Simplified to a few rounded holes are the rams of B.9 and B'.1, while the group of ram and eagle on D.10 is drawn by parallel dashes, recalling the style of the lion on D.7.

Three of the rams, on B.9, B.11 and D.9, are adorned with scarves curling over their backs; on B.9 and B.11 the knot is also visible in front of the breast. By these scarves the rams and stag are distinguished from all the other animals and the custom of representing busts of rams and stags on wings also suggests that these two animals had a special place in Sasanian iconography.

The goats of A.1.2, B.6 and B.15 have heavier bodies than the rams; their horns are straighter, reaching to the end of the back. Two goats are kneeling, the third stands on short legs. The style is rather graphic in all three seals, like that of the lion on D.7.

The two kneeling gazelles of D.6 have already been discussed. They are treated in a fairly lively fashion, with the hind leg of the right beast stretching quite naturally.

Two of the three stags, on C.3, D.1 and B.13, are resting on the ground, heads turned back, shown in profile, but the horns shown from the front. Both are decorated with scarves; the stag on B.13 is provided with a "device" recalling a lyre. The stag on C.3 stands with a raised head before a small bush. Seals C.3 and D.1 are drawn in the graphic style using parallel dashes; B.13 shows the more elaborate style of the ram on B.11.

The humped bull on C.2 is shown at the moment of kneeling, the one on A.1.1 is standing, surrounded by a medallion. Although treated in cruder graphic style, both seals do not lack life.

A camel with one hump strides along at a rapid pace on seal A.2, head bent back, tail held high. This lively representation is not a bad piece of art.

The hare, jumping away on seal B.18, is quite lively, and is the only example of a flying gallop in our collection.

Seal A.5.4 has a small crouching monkey. The monkey is a very important animal in the mythology of India and Central Asia, and it would be interesting to know more about its place in Iranian mythology.

There are four birds on seals C'.5, D.8, B.7 and B.16, and another is joined in combat with a ram on seal D.10. The eagle on C'.5 is treated in a crude, graphic way explicable because of the very hard rock crystal into which this figure was engraved. With its outstretched wings and straight neck, this eagle has an heraldic attitude. The bird on D.8 is also treated as an heraldic animal, its long neck giving the impression that it may be a vulture. But this is by no means sure, and this seal may not even be Sasanian, for its style is much more Western than that of the other seals. We cannot exclude the possibility that this seal is of Egyptian provenance.

The goose on B.7 is a very good engraving; its wings flap in full harmony with its striding legs. The Sasanians had a well-known predilection for the goose. A small bird, possibly a pigeon, is shown in B.16, together with a small object which may be a tree or "device." A comparison of this bird with the eagle on D.10 emphasizes the range of style on the seals. D.10's bird is treated rather like an outline filled in with dashes, while B.16 shows details such as wings, tail, breast and two bent legs; its head is in the characteristic posture of small birds such as pigeons.

*d. Fabulous Monsters and Busts of Animals*

We have already noted that rams and stags with scarves point to a mythical background connected with some of the animals. But there are also some fabulous creatures often seen on Sasanian seals which are composed of parts of different beasts.

The griffin has the body of a lion, the head and wings of an eagle. It thus represents the beast of prey acting on earth and in the air. The griffin on B.8 is supplied with a scarf, which seems to give it a more peaceful look, but the scarf's meaning is not yet known. Possibly the scarf was a sign of victory, in which case it would be an attribute reinforcing the griffin's force. The ram and the stag, who often wear scarves, are also powerful animals; the ram in the *Karnamak-i Ardashir* is the symbol of the *khwarenah*, the spiritual force of victory.

The raised foreleg of the griffin on B.8 is as stiff as that of the lion on B.14. The griffin on B.10 is rather unnaturally seated on stretched hind legs and raised forelegs. The tail is shown as a divided palmette. The engraving of C.6 is made graphic by a few straight dashes, but does not lack life.

On seal B.12 we see a kneeling animal composed of the body of a horse or an ox, with wings, and the head of a bearded man. This creature is generally called a sphinx, though it is not identical with the Egyptian sphinx.

A winged horse is seen walking on D.5, its foreleg bent, which gives a livelier impression than does the more rounded griffin on B.8. Both B.12 and D.5 are engraved in graphic style, using parallel dashes.

The winged busts of beasts such as stags (C.5) or rams are iconographic phenomena.<sup>24</sup> Our stag bust is provided with a scarf around its neck; its head faces right, its horns are seen frontally. The wings rise from a flagpole and two buds on long stalks curl up from the bottom of the wings. The banner with an animal figure on top, a well-known piece of equipment in the burials of Central Asiatic chieftains, has been found in the kurgans of Pazyryk and Maikop and in Early Bronze burials of Alaca Hüyük in Anatolia.<sup>25</sup> This standard is a survival from the northern home of the ancestors of the Sasanians, together with the symmetrical

<sup>24</sup> Bivar, *Catalogue*, type ER, pp. 89–90.

<sup>25</sup> Karl Jettmar, *Art of the Steppes* (New York, 1967), pl. 15.

scene of riders found on Scythian vessels and Sasanian investiture reliefs.<sup>26</sup> These survivals point to an animal-oriented background, traceable also in personal names composed of names of animals such as *xšaya-aršan*, beaming bull—Xerxes, *aršak*, bull, and *valgaš*, wolf.

*e. Floral Designs*

A nicely executed vine scroll is on seal A.3; the scroll forms a spiral, the circles filled by five-lobed leaves. The scroll is accompanied on one side by the inscription, on the other by a small animal, a mongoose with bushy tail. The vine scroll was a much-favored decorative motif in late Sasanian and early Islamic times and our piece is a rather early example. The objects shown on A.5.3 and C.4 seem to be trees or bushes, growing out of a stem in three branches. However, the horizontal line at the upper end of the stem is difficult to explain. One should not overlook the possibility that these representations are fire-altars, like those collected by Bivar.<sup>27</sup> One of his seals likewise shows a three-branched design on a table, and is interpreted as flames.

### 3. The Chronology of the Styles

Most of the seals in the ANS collection can be classified into two rather crude styles, one rounded but lacking observations of the natural motion of animals, the other graphic, using parallel dashes. C.1 is the only seal conspicuously different in style, its lion is of far superior quality. This seal can probably be dated from the third century A.D.; the name of Ardashir possibly indicates the reign of Ardashir I or his first successors, when many officials chose the name of the famous king.

The majority of the other seals may date from the second half of the Sasanian dynasty, from the 5th to 7th centuries, when very cursive script was known, though the old uncial ductus was still used.

There is one interesting point of preservation: the "official" seals such as B.2 and C'.2 were broken when they went out of use, to prevent unauthorized sealings. "Official" seals in other collections were also broken by chipping off an edge.

<sup>26</sup> Kurt Erdmann, *Sasanidische Kunst (Bilderhefte der islamische Abteilung, Heft 4, Staatliche Museen in Berlin 1937)*, fig. 1.

<sup>27</sup> Bivar, *Catalogue*, type LG, pp. 108–109.

## IV. INSCRIPTIONS

1	10
2	11
3	12
4	13
5	14
6	15
7	16
8	17
9	18
	19
	20
	21
	22

Fig. 6

The 22 inscriptions (Figure 6) are read and translated below. They are all but one written in the Middle Persian script. The one exception is No. 21, in a late form of the Parthian script, which is of some interest because it seems to be one of the latest documents in this script, dating probably from the 5th century A.D.

1. (A.3) 'pzwn - *prosperity*
2. (A.5.1) ('. . . tyn)/mgwh/ (. . .) 1 '(hm)t'n kwst (. . .) - . . . *magi administration . . . district . . .*
3. (A.5.2) mhlyn hwsp - *Mahrin and Huwasp (female and male personal names)*
4. (B.1) hlmzd ZY mgw zywyd 'twl pln kl'd'y'n - *The magi Hormazd. May the fire Farn(bag) in Kariyan live!*
5. (B.2) zln(. .) / mgwh) / (')hmt'n kwst ZY š(. . .) - *The magi administration of Zarn . . ., Hamadan, district of Sh . . .*
6. (B.3) m'hlwc' - *Mahroz (male personal name)*
7. (B.5) plnbg - *Farnbag (personal name)*
8. (B.7) 'twr bht'n's - *May the fire bring him luck.*
9. (B.8) l'stydy - *righteousness*
10. (B.9) plhwd't - *Farrahdāt (personal name)*
11. (B.10) spnd - *Spand (personal name)*

12. (B.11) pwlk'y mgwy pwlk'n - *Purak, the magi, son of Purak*
13. (B.14) dstk(r)t' gry - *the village hill* (place name) or *Dastegerd gari* (personal name)
14. (B.19) wld'n - *Wardān* (personal name)
15. (C.1) hwzyd 'rthštr - *the victorious Ardashir*
16. (C'.1) \* whwn'm\* - *Vohunām* (personal name)
17. (C'.2) LY ZY bgyh (. . .pr)mwd - *I, the goddess, ordered.*
18. (D.2) pn'hyh PWN yzdt' - *refuge in God*
19. (D.4) d'tgwšnky zdh mtry - *Datgawishnak, the weapon of Mithra* (personal name)
20. (D.6) l'y (l')t - *sage and generous*
21. (D.9) Parthian: tny lywn hlt tlys - *of handsome, body, wisdom and (god)-fearing.*
22. (D.11) hn 'pzwn - . . . *prosperity*

### Commentary

- 1, 22: 'pzwn - a derivative of the verb 'pzwtn' - to increase. It is used to translate the Avestan *spenta* - holy.
- 2,5: mgwh - this word was discussed by Maricq and Frye<sup>28</sup> who both suggested it must be an abbreviation. Maricq reconstructs a word *mgwh('nk)* - magus-house; Frye reads *mgwx(wd't)* - *magu kh(udā)*, chief magu, a word found on a seal in the British museum.<sup>29</sup> Bivar does not give his own opinion. It is highly improbable that this word is an abbreviation, because it must have been of some importance, since it was found so often on the "official" seals in a place where it was replaced only rarely by such important titles as *d'twblly* - judge, *štlpy* - governor, *m'lkly/hm'lkly* - chief fiscal officer,<sup>30</sup> and *plm't'l* - commander.<sup>31</sup>

Derivatives of the word *mgw* - magi, are given by Kapadia;<sup>32</sup> *mgwy* and *mkyh* mean the occupation of a priest. Neither fits with

<sup>28</sup> André Maricq, "Vologésias, l'emporium de Ctésiphon," *Syria* 36 (1959), p. 268. Frye, *Iranica Ant* 8, pp. 113-132.

<sup>29</sup> Bivar, *Catalogue*, AE 4, p. 151.

<sup>30</sup> Frye, *Iranica Ant* 8, pp. 120, 123, 125.

<sup>31</sup> Frye, *Festschrift . . . Altheim*, p. 82.

<sup>32</sup> Dinshah D. Kapadia, *Glossary of Pahlavi-Vendidad* (Bombay, 1953), pp. 407, 427.



*mgwh*, since both are *-i* abstracts. In the inscription of Kardir at the Ka'ba-ye Zardosht, we find the derivatives *mgwpt*, *mgwstn*, *mgwGBR'* and *mgwny* - chief magi, magi community, magi man and belonging to the magi(?), none of which is identical with *mgwh*, but which show the many variations of this word. If we want to explain the final *-h* of *mgwh* we may compare Mp. *šāh*, developed from Op. *xšāyaθiya-*, the ending *-iya-* being represented by *-h*. Old Iranian *magupaiθya-* may be the source of *mgwh*, the two velars *-up-* being assimilated to *-ū-*, the ending *-iθya-* being reduced to *-h*.

\**magupaiθya* > \**magūθya* > *magūh*.

\**magupaiθya* / *mgwh* can be explained as the magi administration, an institution probably not differing much from the Parsee punchayet in Bombay. This was a fairly new institution, developed on a Hindu model at the end of the 18th century;<sup>33</sup> it may be based on similar institutions of the Sasanian Empire. This Sasanian institution sealed hundreds of documents, the clay bullae of which have been found in excavations. We know nothing about the contents of these documents, but at least we know their name, because the chief magi Kardir often mentions that he was occupied with sealing documents, as in the inscription of Kardir at the Ka'ba-ye Zardosht, line 5:

w KBYR > <twl'n w mgwny p'thštly HTYMWnt w GTy w p'thštly w m'tgd'n MH 'LH 'DN' QDM 'whrmzdy MLK'n MLK' PWN BB' w h'mštly gyw'k 'L gyw'k klty 'LH HN' 'wgwn QDM YKTYBWN YK 'YMWnt 'YK kltyl ZY 'whrmzdy mgwpt

And many documents for fires and belonging to the magi were sealed and donations (?) and documents and testaments (?), which were made in that time under the King of Kings Ohrmazd at the court and in the whole land, place by place, they were written upon thus: "Kardir, the mobad of Ohrmazd."<sup>34</sup>

<sup>33</sup> Dosabhai Framji Karaka, *History of the Parsis* 1 (Bombay, 1884), p. 215.

<sup>34</sup> Walther Hinz, "Die Inschrift des Hohenpriesters Karder am Turm von Naqsh-e Rostem." *ArchMitt aus Iran* N.S. 3 (1970), p. 258. Hinz transcribes *mgwny* as *mogdn*, suggesting a plural of *mgw*; the ending *-ny* can never be a plural, as W. B.

We see that the magi Kardir wrote, signed and sealed documents concerned with the consecration (?) of fires and with the affairs of the magi. The three designations of the various documents are still rather uncertain, but may provisionally be connected with the initiation of priests and Behdens, with donations to temple estates, with honorable titles, and so on. Most important, however, is the statement of Kardir that over the whole empire down to the last village these documents were signed and sealed by his name. We may therefore suggest that Kardir was creating a clerical administration spreading over the whole empire, which is probably the prototype of the later *waqf* organization of Islamic times. The hierarchy of the administration units: village / *kwst*(district) / province, as it is traceable from the "official" seals, makes it clear how far this system of clerical administration was developed in the second half of the dynasty. We must acknowledge the *\*magupaiθya-/mgwh* - magi administration as one of the basic economic systems of the Sasanian Empire.

*zln*(. .), (')hmt'n, š(. . .) - The topographical names of inscription 2 are much defaced; only '(hm)t'n - Hamadan, is traceable. One can gain more information from inscription 5. Barbier de Meynard gives the name of a village of Zarand, which may be the *zln*(. .) of the seal: "Petite ville entre Ispahan et Sāwah; patrie d'Abou 'Abd Allāh Mohammad ben 'Abbās ez Zarendi, le Shirazien, grammairien et traditionniste connu." He also gives the names of the 24 *rustāq* of Hamadan, which may reflect the *kwst* (district) of our inscription.<sup>35</sup> Two of these have names beginning with š-: Šerrāh al-'aliya

Henning observed in *Handbuch der Orientalistik. Mitteliranisch. Abteilung 1 Vol. 4 Pt. 1* (Leiden, 1958), p. 69, note 1. The word might be explained as a derivative in *-van* from *magu*—belonging to the magi. Hinz transcribes *gyw'k/Tfmp. gy'g* as *ḡāh*, but an ending *-g* should be rendered as *-y* rather than *-h*, so that we have Np. *jāy* (Gerd Gropp, "Ein Gedicht von Hafez in einem Safavidenpalast." *ArchMitt aus Iran* N.S.2 (1969), p. 193, last line). See also Paul Tedesco, "Dialektologie der westiranischen Turfantexte." *Le Monde Oriental* 15 (1921), pp. 184–258, and Wolfgang Lentz, "Die nordiranischen Elemente in der neupersischen Literatursprache bei Firdosi." *Zeitschrift für Indologie und Iranistik* 4 (1926), p. 251 ff. However, because *Tfmp.* still has an ending *-g*, it seems more reasonable to transcribe *ḡāg*.

<sup>35</sup> C. Barbier de Meynard, *Dictionnaire géographique, historique et littéraire de la Perse et des contrées adjacentes* (Paris, 1861), pp. 284, 605.

and Šerrāh al-mianedj - the upper and middle Sherrah. Two district-like names beginning with *s-* are suspicious: Sirāwand and Sāwah, the second mentioned in connection with the village Zarand above. Unfortunately, I have not been able to discover the location of Sherrah, but possibly it is the district of the province of Hamadan, in which the village of Zarand lay.

3. mhlyn: *Mahrin* may be the female counterpart of *mahri/mašya* - primordial man<sup>36</sup> derived from pahl.-av. *mašyānak* with the usual rendering of av. *-š-* as *-hr-* found in Pahlavi transcriptions of canonical words such as *ašavan/ahrav*. The end of the word *-yānak* is shortened and the vowel palatalized by the loss of the *y*.  
hwsp: *who has good horses* - is a common Iranian name.<sup>37</sup>
4. hlmzd: This orthography is found quite often in late Sasanian inscriptions instead of the more common *'whrmzd*, e.g. *hwlmzdy* in the Meshkinshahr inscription from the time of Shapur II.  
zywyd 'twl pln kl'd'y'n: *zywyd* is the optative of the verb *zywstn* - to live. Invocations which begin with the phrase "may it live" are not found on seals of the collections of the British Museum, the Hermitage or the Berlin Museum.  
I have written elsewhere about the ruins of the village of Kariyan, where in former times the fire Farnbag burned.<sup>38</sup> In this inscription we get the old name of the village, but the orthography shows clearly the pseudohistoric rendering of the name, with *-d-* inserted by the writer.<sup>39</sup>
6. m'hlwc': This personal name meaning the light of the moon is not found in Justi, who has only *mahrui* - moon face, and several other names with *raocah* - light - as second compound.<sup>40</sup>
7. prnbg: Here the name of the holy fire Farnbag (see inscription 4) is used as a personal name, a practice common in Sasanian times.
8. bht'n's: This inscription in very cursive characters is difficult to

<sup>36</sup> Ferdinand Justi, *Iranisches Namenbuch* (Marburg, 1895. Reprinted Hildesheim, 1963), pp. 187, 198.

<sup>37</sup> Justi, *Namenbuch*, p. 140.

<sup>38</sup> Gropp, *ArchMitt aus Iran*, N.S. 3, pp. 192-194.

<sup>39</sup> Henning, *Handbuch*, p. 68.

<sup>40</sup> Justi, *Namenbuch*, pp. 187, 507.

read. I compare it with *bht* - luck, fortune, destiny,<sup>41</sup> a derivative of *baršīdan*- to allot, to present, here used in the form of a denominative with the enclitic pronoun of the third person singular.

10. *plhwd't*: *Farrahdāt* - to whom spiritual power is given, is a common name in Iran.<sup>42</sup>
11. *spnd*: Uncertain reading. I suggest the av. *spenta*- holy; this name is not found in Justi. It may be a device like *afzun* (see inscription 1). Other possible readings are *dpwy* or *gpry*.
12. *pwlk'*: This name is attested by Justi as *Furak*, *Purak*.<sup>43</sup> The etymology of Justi, deriving from the name of the Indian king Porus is not impossible, but one might rather suggest a derivative of *puhr* - son, *puhrak* being the little son.
13. *dstk(r)t gry*: Very uncertain reading.
14. *wld'n*: *Wardān* is quite a common name in Persian, but the inscription may also be read *zld'n*,<sup>44</sup> *wardān* being "like a rose", *zardān* - like gold.
15. *hwzyd*: being well victorius - I explain by Bpl. *zyy* - victory, triumph; to conquer, defeat,<sup>45</sup> with prefix *hu-* - good.
16. *whwn'm*: This is a name preferred by Christians;<sup>46</sup> our inscription is also Christian, as is obvious from the crosses framing the word and the cross device in the middle of the seal.
17. *LY ZY bgyh (pr)mwd*: *bagih* is the abstract of *bgy* - god, meaning godhead, but the figure of the female deity on the seal makes it obvious that here it is the goddess. The reconstructed *farmud* - ordered, is unusual with its ending written *-d* instead of *-t*. However, we sometimes have such renderings of the past stem in the inscriptions of Kardir.

This inscription is of special interest because it is related to the act of sealing. This must have been the official seal of a shrine in honor of a goddess, perhaps Anahita.

<sup>41</sup> Kapadia, *Glossary*, p. 319.

<sup>42</sup> Justi, *Namenbuch*, p. 96.

<sup>43</sup> Justi, *Namenbuch*, pp. 106, 255.

<sup>44</sup> Justi, *Namenbuch*, pp. 351-353, 381.

<sup>45</sup> Kapadia, *Glossary*, p. 361.

<sup>46</sup> Justi, *Namenbuch*, p. 341.

18. pn'hyh PWN yzdt': The last sign of *yazad* - god, is very like the form of *k* found in the cursive inscriptions of Fars and southern India.<sup>47</sup> However, since a *-k* derivative of god is unusual it may better be explained as the final *-y* often found in Middle Persian.

The invocation is quite common on seals, alternating with 'pst'n'L yzd'n which Bivar renders into English as reliance on the gods;<sup>48</sup> but 'pst'n, av. *upastā-*, is help, assistance,<sup>49</sup> and we have to translate this formula by "help to God," expressing the characteristic Zoroastrian idea that the believer in the true religion is helping God in his struggle against Ahriman.

19. d'tgwšnky: The reading of this inscription is uncertain. The gerund of *guftan* - to speak, is usually written *gwbšn'*, but possibly we have here an older orthography. This name then has the meaning of "the speaker of law," a name related to compounds with *-gui* like *Wahgui* - speaking good things.<sup>50</sup>

zdh mtry: These two words may be a later addition to the seal. *zdh* I compare with Bpl. *zyy*, *zh* - weapon,<sup>51</sup> but the name may also be related to *Zādmīhr*,<sup>52</sup> if we do not derive *zād-* with Justi from *āzād* but from *zāyidan* - to bring forth, and then, "brought forth by Mitra."

20. l'y (l')t: Epithets like these and *l'stydy* on inscription 9, possibly also *spnd* on inscription 11, if that is not a personal name, are very common on seals. We find the group in the form of *l'ty w l'sty* (line 18) and *l'ty w l'sty w mlp'n w hwkly w klpkly* (line 8) is the inscription of Kardir at the Ka'ba-ye Zardosht.<sup>53</sup>

21. tny lywn hlt tlys: This inscription is written in Parthian script and language. Parthian script is even harder to read than Pahlavi, so the transliteration and translation are guesswork; *lywn* may be

<sup>47</sup> Gropp, *ArchMitt aus Iran*, N.S. 2, pp. 241, 246; *ArchMitt aus Iran*, N.S. 3, p. 267.

<sup>48</sup> Bivar, *Catalogue*, p. 19.

<sup>49</sup> Gerd Gropp, "Wiederholungsformen im Jungawesta," (*Hamburger Philologische Studien* 1, Hamburg, 1967), p. 35.

<sup>50</sup> Justi, *Namenbuch*, p. 496.

<sup>51</sup> Kapadia, *Glossary*, p. 361.

<sup>52</sup> Justi, *Namenbuch*, p. 378.

<sup>53</sup> Gropp, *ArchMitt aus Iran*, N.S. 1, p. 157.

related to av. *raēvant* - beaming, beautiful, *hlt* is Tf.N *xrd* - wisdom, and *tllys* may be compared with Tf.N *trs* - godfearing.<sup>54</sup> *hlt tlls* may be rendered as one phrase: of godfearing understanding, as opposed to *tny lywn* - of handsome body. The orthography seems to be influenced by Middle Persian; in older Parthian script the sound *r* is not written by the letter *l*.

22. hn: This word remains unintelligible to me.

### Summary

Most of the inscriptions give the name of the owner of the seal. Thus we have the seals of Mahroz (6), Farnbag (7), Farrahdat (10), Spand (11), Wardan (14), Huzid Ardashir (15), Vohunam (16), and probably two successive owners of the same seal, Datgawishnak and Zade-Mithra (19). The names of a couple are given in 3: Mahrin and Huwasp. Some seals give also the title of the person: the magi Hormizd (4) and Purak, the magi, son of Purak (12).

Invocations may accompany the name as in 4: "May the fire Farn(bag) in Kariyan live" or they may form the total of the religious inscription, as in "May the fire bring him luck" (8), "Refuge in God" (19). They may also be chivalrous devices related to the *andarz* literature so prominent in Sasanian culture: "righteousness" (9), "sage and generous" (20), "of handsome body, wisdom and (god)fearing" (21); the device "prosperity" (1, 22) probably also has a pious meaning.

Inscriptions 9 and 20 may be related to the act of sealing, emphasizing the correctness of the sealed document. Inscription 17 is a clear example that this idea was involved in some inscriptions.

Predominantly topographical names are found in the "official" seals (2,5) mostly giving the name of a village, district and province. A village may also be named on No. 13.

The inscriptions may be classified palaeographically by the form of the most frequent letter, *w*. On seals we find two types of writing, an uncial and a cursive style; the uncial *w* looks like 2, the cursive like 1. Both styles of script were used at the same time, as is demonstrated

<sup>54</sup> Friedrich Carl Andreas and Walter Bruno Henning, "Mitteliranische Manichaica aus Chinesisch Turkistan. III." *Sitzungsberichte der Preussischen Akademie der Wissenschaften, phil.-hist. Klasse* 24 (1934), pp. 907, 909.

by late Sasanian documents, on the one hand the cursive Pahlavi papyri of the late 6th-7th centuries, and on the other, the uncial Pahlavi psalter of the 6th century, which shows traces of being transcribed from a more cursive manuscript. At least in the 5th century, when most of the seals we have considered were probably made, both styles of writing were used.

Uncial inscriptions are found in Nos. 5, 13, 15, 16, 17, and 19, of which only 15 seems to be of an older date, the style of the carving pointing to the 3rd century. The other seals may well have been carved in the 5th century.

Cursive writing is used in Nos. 1, 3, 6, 7, 8, 9, 10, 11, 12, 14, 18, 20, and 22; the ductus of Nos. 7 and 10 is identical with Book Pahlavi, while the cursive of 12 and 18 is near that of the vertical inscriptions on ostodans in Fars and the inscription on the Thomas cross of Madras.<sup>55</sup> In these inscriptions the form of *k* is significant.

A mixed style is found in inscriptions 2 and 4, showing both forms of *w* used side by side: 2 has *mgwh/kwst*, 4 has *mgw/'twl*.

There is only one Sasanian seal known to me which was found in a dated burial, that of Utch Tepe, Russian Azerbaijan.<sup>56</sup> It is dated by a coin of Justin I (518-527) from the early 6th century and has a very cursive inscription.

It should be remarked in conclusion that with the present state of our knowledge, the chronology of seals must be based more on stylistic analysis than on epigraphy.

<sup>55</sup> Gropp, *ArchMitt aus Iran*, N.S. 3, p. 279.

<sup>56</sup> A. A. Jessen, "Fouilles d'un grand kourgane à Outch-Tepe." *Trudy Azerbaidjanskoi Ékspeditsii* 2 (1956-1960) (Moscow, 1965), p. 193.

## THE CHRONOLOGY OF THE SASANIAN KUŠĀNŠĀHS

(PLATES XXIII-XXIV)

CHRISTOPHER J. BRUNNER

A unique office within the Sasanian empire of Iran was that of *wuzurg Kušānšāh*, "Great King of Kušān." Its holder was not just another prince occupying a provincial kingship; he was extending and wielding power in regions made culturally and economically powerful by the second Kushan dynasty (A.D. 129–227)—Toxāristān (Bactria) and Kābulistān. The tribal name of that dynasty endured as a designation of the people and the land as a whole. The Sasanians, gradually acquiring rule over Kušān, acknowledged its history and economic importance by issuing a regional coinage under the Kušānšāh's authority. The coins remain the primary evidence for the existence of this group of governors.

The copper types provide the greatest variety within the Kushano-Sasanian coinage and seem to extend over the longest period. Their weights vary from 1.3 to over four gm., with a mean about 2.5 gm. By contrast, the contemporary Sasanian *pašīz* weighed about 1.5 gm.<sup>1</sup> The Kushano-Sasanian gold issues were of relatively short duration; their weight (7.8–7.9 gm.) remained fairly close to Vasudeva I's standard of slightly over eight gm. The silver issues were special commemoratives following the Sasanian standard. While the titulature of the inscriptions is Sasanian, both the lapidary Middle Persian and the cursive Bactrian scripts are employed. The obverses bear portraits of the governors; the iconography of the reverses derives from both Sasanian and Kushan sources.<sup>2</sup>

<sup>1</sup> See R. Göbl, "Pašiz und das sasanidische Kupfer," *Geschichte der Hunnen* 1. By F. Altheim (Berlin, 1959), pp. 388–90; R. N. Frye, "Additional Notes on the Early Coinage of Transoxania," *ANSMN* 4 (1950), p. 113; Frye and W. B. Henning, "Additional Notes . . . II," *ANSMN* 7 (1957), p. 237.

<sup>2</sup> E. Herzfeld, *Kushano-Sassanian Coins* (Calcutta, 1930), provided the first systematic arrangement and chronology (A.D. 226–351) of the coins. The analysis of A. D. H. Bivar, "The Kushano-Sassanian Coin Series," *JNSI* 1956, pp. 13–42, agrees.



Ardašir I Šāhānšāh (224–241) may have defeated an army of Vasudeva I or II in the process of unifying the former Parthian empire; the westernmost portion of the Kushan realm apparently became subject to him.<sup>3</sup> The remainder split into at least two kingdoms, with centers at Balkh and Peshawar. In the southern kingdom, the “Murunda” rulers continued to model their gold coins on Vasudeva I’s prototypes. They depicted themselves in his dress and stance and placed his symbol on the reverse. The reverse types remained those of Śiva and of Ardoxš, the ancient Iranian goddess of good fortune; but the latter now was shown seated. Vasiška II, Kaniška III, and Vasudeva III maintained the title “king of kings, Kushan.” But their orientation must have been more toward India than Kušān, especially after the eventual loss of Peshawar to the Sasanians. It was in northern India that their coin designs exerted greatest influence.<sup>4</sup>

In Balkh Vasudeva II also called himself “king of kings, Kushan” and imitated Vasudeva I’s types. But the flan of his coins gradually spread, while the figures of the king and of Śiva (the sole reverse type) became thicker and coarser. While Vasudeva I’s symbol remained on the reverse, new devices appeared on the obverse. The first was the *triratna* by the king’s left hand; then a swastika and dot were added between his legs and the three-dot *cintāmaṇi* symbol under his left

See also his account in G. Hambly, *Central Asia* (London, 1969), pp. 49–62. By contrast, R. Göbl, “Die Münzprägung der Kušān, von Vima Kadphises bis Bahrām IV,” *Finanzgeschichte der Antike*, by F. Altheim and R. Stiehl (Frankfurt am Main, 1957), pp. 173–256; “Eine neuerworbene Sammlung mittelasiatischer Münzen,” *JbBernHistMus* 1965–1966, pp. 185–223 and *Dokumente zur Geschichte der iranischen Hunnen in Baktrien und Indien* 4 vols. (Wiesbaden, 1967) and V. Lukonin date the coins 356–99 and 367–440 respectively, thus at the erosion of Sasanian power in the east. See V. Lukonin, “Kushano-Sasanidskie Monety,” *Epigr Vostok* 1967, pp. 16–33.

<sup>3</sup> See the accounts of Agathangelos and Pseudo-Moses of Khorene: V. Langlois, *Collection des historiens anciens et modernes de l’Arménie* (Paris, 1869), Vol. 1, pp. 115–6, Vol. 2, pp. 115–7 respectively. The *Ecclesiastical History of Adiabene* is in harmony; see J. Markwart, *A Catalogue of the Provincial Capitals of Erānšahr* (Rome, 1931), p. 81.

<sup>4</sup> See, for example, Göbl, “Münzprägung der Kušān,” and “Vasiška II, ein bisher unbekannter König der späteren Kušān,” *Anzeiger der phil.-hist. Klasse der Österreichischen Akademie der Wissenschaften* 1965, pp. 283–300; L. Bachhofer, “Herrscher und Münzen der späten Kushānas,” *JAOS* 1936, pp. 429–39.

arm.<sup>5</sup> The later coins sometimes bear the mint mark B; the full spelling, BAXLO, occurs on Kushano-Sasanian coins. Mint designations may also be present on southern coins; instead of the *triratna*, issues sometimes bear an *akṣara* in Brahmi, e.g., *ha, pa, li*.<sup>6</sup>

Ardašīr Šāhānšāh appointed three of his sons to eastern kingships. Ardašīr Kirmānšāh, replacing the native dynast, protected the southerly approaches to Pārs. Ardašīr Sagānšāh administered the southeast provinces up to the Indus. Ardašīr Marwšāh ruled at Marw, henceforth the pivot of Sasanian power in Khorāsān (the lands east of the Murghāb, especially Kušān).<sup>7</sup> His power may originally have been confined to Marw, Marw ī Rōd, and the Gōzgan region. Extension of Sasanian rule, and perhaps political dictates, then led to elevation of his title to *wuzurg Kušānšāh*.<sup>8</sup> The initiation of the Kushano-Sasanian coinage followed.

Ardašīr Kušānšāh issued copper only; in fineness of detail, the coins compare with those of Hormizd. Considering the changes in the crowns of other third-century governors, one need not assume two Ardašīrs. No. 1 presents his bust adorned with a Sasanian prince's cap in the figure of a bird. Although the figure is indistinct, presumably the *varəyna* hawk or eagle is intended, as on later Sasanian caps and crowns. The reverse presents an investiture scene in honor of Ardašīr's accession.

<sup>5</sup> The significance of the latter element remains uncertain; later it occurs on an imperial *drahm* of Wahrām II: Göbl, *Sasanidische Numismatik* (Braunschweig, 1968), no. 56; Herzfeld, *Kushano-Sassanian Coins*, no. 26. For the development of this series, compare *CII* V.1; Bivar, "Kushano-Sassanian Coin Series," no. 1; G. Bataille, "Notes sur la numismatique des Koushans et des Koushan-Shahs sassanides," *Arethuse* 5 (1928), no. 6; R. B. Whitehead, *Catalogue of Coins in the Panjab Museum, Lahore* 1 (Oxford, 1914), nos. 238–9; Göbl, "Münzprägung der Kušān," nos. 318–319; Bataille, "Notes," no. 7; V. A. Smith, *Catalogue of the Coins in the Indian Museum, Calcutta* 1 (Oxford, 1906), pl. VII.

<sup>6</sup> See A. Cunningham, "Coins of the Later Indo-Scythians," *NC* 1893, pp. 119–20, 124.

<sup>7</sup> The princes are named in Šāpūr I's Ka'ba-ye Zardōšt inscription (ŠKZ), Middle Persian 28 / Parthian 23 / Greek 55. See M. Sprengling, *Third Century Iran, Sapor and Kartir* (Chicago, 1953); W. B. Henning, "Notes on the Great Inscription of Šāpūr I," *Prof. Jackson Memorial Volume* (Bombay, 1954), pp. 40–54.

<sup>8</sup> Unless "Marwšāh" is simply an abbreviated title. Ibn Khordadḡbīh included the *wuzurg Kušānšāh* among the 32 kings recognized by Ardašīr I: E. Herzfeld, *Paikuli* 1 (Berlin, 1924), pp. 45–6.

The king raises his right hand, in a gesture of reverence, to the goddess Anāhīd. It is particularly unfortunate that the obverse inscription is illegible; the reverse bears the abbreviated title *'rthštr MLK'*, "Ardašir šāh."

Ardašir later assumed a new, kingly crown, perhaps marking the elevation of his title. The new crown consisted of four palmettes mounted with pearls. The latter element, perhaps already present on type no. 1, remained a distinctive motif on Kušānšāh crowns. His title is fully expressed and begins with the standard epithets of the Sasanian kings: *mzdysn bgy 'rthštr RB' kwš'n MLK'*, "the Mazda-worshipping lord Ardašir, Great King of Kušān." The reverse is inspired by the contemporary "Murūḍa" reverse of the seated Ardoxš; here, however, it is the god Ohrmazd who sits enthroned and framed by a Sasanian arch.<sup>9</sup>

The length of Ardašir's reign is uncertain. Still in the lifetime of Ardašir I Šāhānšāh, his brother Pērōz succeeded him. It is likely that "prince Pērōz"<sup>10</sup> governed until his brother Šāpūr's coronation as Šāhānšāh in 242. Toward the end of his rule, the apostle Mānī made his two-year sojourn (240–241) in the Sagānšāh's lands. It seems doubtful that Mānī and Pērōz could have met at this time. If the prince was eventually converted, it was probably at his return to Šāpūr's court and perhaps under the influence of another brother, Mihršāh. Pērōz may then have introduced Mānī to Šāpūr.

Pērōz issued one silver and three copper types. No. 1, his silver piece, shows his crown clearly as a fluted band surmounted by pearls. His full title also occurs on the obverse. The reverse depicts his investiture. The god Ohrmazd, wearing his unmistakable crown, sits enthroned in the pose of the seated Zeus derived from Great Kushan coins. The prince, in an adaptation of the Vasudeva pose, worships him at a Kushan "hourglass" altar. Ohrmazd is designated *bwlz'wndy yzty*, "exalted god,"

<sup>9</sup> Ardašir may possibly have issued a third type with a reverse of stepped fire altar and bust (Herzfeld, *Kushano-Sassanian Coins*, no. 1), but H. H. Wilson's drawing (*Ariana Antiqua* [London, 1841], pl. 17, no. 12 and p. 403, no. 37) is uncertain. Otherwise the example is Pērōz I.3.

<sup>10</sup> He is mentioned in ŠKZ 26/21/49 and possibly in Narseh's Paikuli inscription, Parthian 14 (Herzfeld, *Paikuli*, p. 101). On Pērōz see Herzfeld, *Kushano-Sassanian Coins*, p. 33; S. H. Taqizadeh, "The Early Sassanians," *BSOAS* 1943, p. 15.

the prince "Pērōz šāh." The coin skillfully presents a Sasanian theme through Kushan motifs.

Pērōz's coinage did not borrow, as did Ardašīr's, only the motif of the seated deity. Three reverse types, all new (disregarding the ambiguous example mentioned above, note nine), are found on the copper. No. 2, with the image of Śiva and the bull Nandi, reproduces the common reverse of Great Kushan and contemporary, late Kushan gold. The second motif is Sasanian. No. 3 shows a fire altar, stepped at both base and top, bearing a frontal bust. The altar most closely resembles those on the coins of Ardašīr I Šāhānšāh. The bust, representing either Xwarra (the king's Fortune personified) or Ādur (the god Fire), is not shown on imperial Sasanian coins until the reign of Hormizd II (303–309). No. 4 portrays a variation of this theme. The altar is Kushan, with a small base and a narrow, echinus-shaped top. The bust, now wearing a head-dress, shows the face in left profile. It also has arms, which hold diadem and staff. Bivar discerned traces of a reverse inscription, possibly in Bactrian script. One would expect the phrase "exalted god" in Middle Persian script, which the other types with this reverse (e.g., Hormizd I.11) bear. The examples of Pērōz 2 and 3, if they did bear inscriptions, have lost them from wear.

Šāpūr I Šāhānšāh, during his period of co-regency with his father (240–41), campaigned on the northern frontier and extended Sasanian rule as far as Khwarizm.<sup>11</sup> In 242 he was sole ruler and preparing to go to war with the Roman empire. It was probably at this time that he appointed his son Wahrām as Gēlānšāh to secure the northern mountain regions and Hormizd as governor of Khorāsān, i.e., as Kušānšāh.<sup>12</sup> Hormizd's tenure in this office lasted 10 years. In 253, whether before or after his recall to court, disorders in Khorāsān briefly distracted

<sup>11</sup> Eduard Sachau, *Die Chronik von Arbela* (Berlin, 1915), pp. 35–64; W. B. Henning, "The Choresmian Documents," *Asia Major* 1965, pp. 168–70. Šāpūr is advertised as Ardašīr's heir on imperial coins: Göbl, *Sasanidische Numismatik*, nos. 19–20, 34.

<sup>12</sup> Wahrām: ŠKZ 25/20/47. Hormizd: al-Tha 'ālibī, *Histoire des rois des perses* (Paris, 1900), pp. 495–6; al-Ṭabarī, *Geschichte der Perser und Araber zur Zeit der Sasaniden* (Leiden, 1879), pp. 31–2. Perhaps the Ardašīr appointed Nōd-Ardašīr-ragānšāh, "King of Adiabene," was the former Marwšāh or the former Saganšāh, neither of whom continued in his original office.

Šāpūr from his Mesopotamian campaign. Henceforth Hormizd remained in the west, serving as *wuzurg Armēnānšāh*, "Great King of Armenia." His brother Wahrām may then have combined the offices of Gēlānšāh and Kušānšāh.

During Šāpūr's reign, Sasanian control of Khorāsān expanded dramatically. Šāpūr's Ka'ba-ye Zardōšt inscription states that Kušānšahr, "the province of Kušān," extended "up into Puškabūr (Peshawar) and up to the borders of Kāš (Kashgar), Sogd, and Šāš (Tashkent)."<sup>13</sup> The Kushano-Sasanian coinage indicates that this expansion came largely in Hormizd I Kušānšāh's tenure. His issues are the most numerous and varied. Particularly striking is the gold scyphate series, comprising his types 1–6 distributed between a southern or western mint (perhaps Marw) and Balkh.

No. 1 occurs in both gold and copper and closely imitates Vasudeva II's gold. Hormizd wears Kushan dress and crown but is distinguished by his hair being bunched in Sasanian style. The copper version lacks space for most of the obverse and all the reverse inscription; the same is true of types 2–3. On no. 1, Hormizd's title is written in cursive Bactrian script without the initial Sasanian epithets: UORMIZDO OZORKO KOŠONO ŠAUO, "Hormizd, Great King of Kušān." *Cinta-māñi*, *triratna*, and swastika with dot all occur, but also the syllable *pe* or *hi*. This borrowing from the southern coinage perhaps indicates extensive Sasanian occupation of Bāmiān by 242, if not yet the taking of Peshawar. The reverse shows Śiva with Nandi. The god, as on Pērōz's copper, wears Iranian trousers; he also adopts the title "exalted god" (OÖRZOOONDO IAZODO).

The gold and copper of type 2 show Hormizd now in Iranian dress; his crown terminates in a lion protome. A nimbus still surrounds his head and the various obverse symbols remain. Śiva's hair is now long and bunched in Sasanian fashion. This issue is the first to contain a smaller gold denomination of 4.3 gm. as well as the larger piece.

No. 3 differs from 2 only in the absence of *pe* or *hi*; it is the last gold issue to have a parallel in copper. Type 4 adds the opened (lotus?) flower element to the top of Hormizd's crown; it projects beyond the nimbus. Both whole-weight and quarter (1.66 gm.) pieces occur. No. 5

<sup>13</sup> ŠKZ 4/3/5–6.

is represented only by a quarter piece; the sole change is the dropping of the king's nimbus.

Crowning Hormizd's scyphate issues is no. 6, which announces his occupation of Balkh.<sup>14</sup> It differs from no. 5 in designating the mint as BOXLO and adopting the grandiloquent title of the king of Balkh: UORMOZDO OÖZORKO KOŠONO ŠAUONOŠAUO, "Hormizd, Great King of Kings of Kušān." Two other types, issued in the western part of his realm, celebrate this conquest. No. 7 is a light, silver *drahm* (3.7 gm.); its copper version differs in omitting the reverse inscription and abbreviating the obverse one. Hormizd's bust is shown in Sasanian fashion; he wears the lion-protome crown with opened flower element. His new title is given in Middle Persian script: *mzdysn bgy 'wħrmzdy RB' kwš'n MLK'n MLK'*. The reverse adapts the investiture scene of Pērōz's silver coin. Hormizd wears his proper crown and is given his expanded title; Ohrmazd is again called "exalted god." An important addition is the mint designation: *ħlywy*, "Harēw" (Herat). Hormizd is the last Kušānšāh to portray a full investiture scene on his coin.

No. 8 was a gold coin but distinguished from the scyphates by its light weight (7.19 g.), as well as by its purely Sasanian style. The obverse duplicates that of no. 7. The reverse repeats the full obverse inscription and adds the mint: *mlwy*, "Marw." The investiture scene depicts Hormizd and the god Mihr flanking and facing a slender fire altar (the type common on imperial coins from Šāpūr I on). This motif is not only unique in Kushano-Sasanian coinage; it was the prototype for a unique issue of Hormizd as Šāhānšāh (272–273). The only major difference in the imperial issue is the essential change in crowns.<sup>15</sup>

Issues 6–8 are the culmination of Hormizd's coinage. One is tempted to think that his adoption of the title Kušānšāhānšāh aroused Šāpūr's

<sup>14</sup> Perhaps by this time Hormizd had already earned his epithet *nēw*, "the brave," See al-Ṭabarī, *Geschichte*, p. 43; W. B. Henning, "The Great Inscription of Šāpūr I," *BSOAS* 1937–1939, p. 848. The *Kārnāmag i Ardaštr i Pābagān* (KAP, ed. E. K. Antia, Bombay, 1900), XVIII.22, recalls Hormizd's authority in the east.

<sup>15</sup> Göbl, *Sasanidische Numismatik* no. 36. Hormizd issued a complementary type showing Anāhīd (no. 38), which inspired a similar reverse of Wahrām II (nos. 68–70). These all contrast notably with the usual motif of the king and possibly his spiritual *hangirb*, "double," turned away from the altar.

misgivings. He may have recalled his son in order both to employ his military skills in the Roman wars and to keep closer watch on a possibly restless heir. The remaining four coin types of Hormizd are all copper and designate him only as Great Kušānsāh; hence they are contemporary with most of the scyphates and their copper, nos. 1–5. Nos. 9–12 share a common obverse—the bust which was later reproduced, with greater skill, on the commemoratives 7 and 8. Three of the reverse types are familiar: no. 9 (= Pērōz 2) Šiva and Nandi; no. 10 (= Pērōz 3) stepped fire altar with bust; no. 11 (= Pērōz 4) conical fire altar with armed bust. No. 12 is a cruder version of no. 10; the top and the bottom of the fire altar are each a single, massive plinth instead of being stepped. This wealth of copper types is never approached under any of the other Kušānsāhs.

The disorders of A.D. 253, which required Šāpūr's personal attention, may have been generated by Hormizd's departure for the west. Šāpūr quickly settled matters in order to return to his Roman war the following year. Perhaps he assigned to Wahrām Gēlānšāh the government of Khorāsān, although this elder, less favored son is mentioned in ŠKZ only by the lesser title. In any case, Hormizd was succeeded by a Wahrām, who did not immediately mint in Balkh. Perhaps Toxāristān had rebelled and was only retaken after several years. That peace was restored and Sasanian control reinforced is indicated both by the Kushano-Sasanian coinage and the progress of the Manichaean mission in Khorāsān. During the governorships of Hormizd and Wahrām, electi such as Rāštīn at Marw established the Church's presence along the main trade routes. Still during Mānī's lifetime, the teacher Mār Ammo conducted a mission at least as far as Gharchistān, perhaps farther. Mānī himself was intending to go to Kušān at the time of his imprisonment by Wahrām as Šāhānšāh.<sup>16</sup>

Wahrām I Kušānšāh, returning to the less exalted title, proceeded to issue the second series of scyphates plus one special gold issue.

<sup>16</sup> F. C. Andreas and W. B. Henning, *Mitteliranische Manichaica aus Chinesisch-Turkestan* 2 (Berlin, 1933), pp. 302 ff; 3 (1934), pp. 857–8 and note 5; W. B. Henning, "Waručān-Šāh," *Journal of the Greater India Society* 11 (Calcutta, 1944), pp. 85–90; and "Mani's Last Journey," *BSOAS* 1942, pp. 941–53.

These types (nos. 1–9 plus 10) may be ordered as follows; dots indicate a change of crown:

Mintmark	Chronological Order									
<i>hi</i> (10)										
ø	1	2	4	•	5	•	6	8		
BAXLO	3						7	9		

Wahrām's scyphates, like Hormizd's later ones, have a well-spread flan; their weight is definitely lower, about 7.8 gm. From the beginning, the iconography and the inscription are more coarsely rendered. The decline continues, but more rapidly in the southern or western mint than at Balkh. The inscription on the obverse runs (with some variations in the spelling): BOGO OROUORONO OZOZORKO KOŠONOŠAUO, "Lord Wahrām, Great King of Kušān."

The mint mark *hi* seems to indicate a southern origin for the special issue, no. 10, which is probably roughly contemporary with Wahrām's early scyphates. Wahrām wears his early crown, a pearl-mounted circlet with an enlarged flower element above. The usual Kushan obverse symbols are omitted. Although the king stands in Vasudeva's pose, his left hand grasps his sword hilt and not a trident. This motif could signify victoriousness in general,<sup>17</sup> but the reverse renders it more specific. The image of Ardoxš enthroned is borrowed from the southern, late Kushan coinage; the goddess extends in her left hand, however, not the usual diadem, but the pointed crown of the Kushan King of Kings. This excellent propaganda piece would have served well to show the securing of Peshawar by the Sasanians. The date of that triumph within Šāpūr I's reign is unknown, but one is tempted to assign Wahrām I Šāhānšāh's victory over kings of the East to his tenure as Kušānšāh.<sup>18</sup> The coin could also have served as an investiture commemorative. In view of the coin's importance, it is unexpected that the inscriptions should run off the flan; the obverse one, moreover, is reversed, to be read counterclockwise from the outside. The reverse probably read "exalted god" in proper, clockwise order.

<sup>17</sup> Compare the seal of Wahrām IV, former Kirmānšāh: A. D. H. Bivar, *Catalogue of the Western Asiatic Seals in the British Museum, Stamp Seals II. The Sassanian Dynasty* (London, 1969), BC 1, p. 56 and pl. 4.

<sup>18</sup> Mas'ūdī, *Les prairies d'or* 2 (Paris, 1873), p. 167.



On scyphate no. 1, Wahrām wears a crown similar in shape to that on no. 10, but the details appear differently. The crown is rendered as a fluted one. On the reverse, Śiva has lost his nimbus but wears the royal diadem seen on the obverse and on no. 10; it floats up behind the head. On nos. 2–4, the crown is clearly shown as a double ring of pearls; its general outline and the opened flower again remain the same. No. 2 replaces the *triratna* with a tulip-shaped *lamga* “device,” which is surmounted by a rosette of seven dots. The corresponding Balkh issue (no. 3) is more conservative. The king’s diadem ribbons have not yet been widened, as have those on no. 2; and the *triratna* remains. No. 4 differs from no. 2 only in absence of the rosette.

Scyphate no. 5 has usually been attributed to a second Wahrām, because the king wears a new crown consisting of a circlet mounted with two ram’s-horns and the opened flower above them. But this criterion is insufficient. The Sasanian ram’s-horn headdress proclaimed the dynasty’s *xwarra* and would have been especially appropriate as a war crown. Thus Šāpūr II, or else one of his sons, wore a ram’s-head crown at the siege of Amida.<sup>19</sup> This issue could indicate that Wahrām Kušānšāh was again on campaign. The coin’s details argue for a position in Wahrām I’s series: The degeneration of the Śiva-Nandi reverse is at an early stage. The king’s figure is not too gross nor the flower slightly enlarged, as in Wahrām’s later issues. The swastika is still present, although it has been transferred to above the *lamga*; the dot which formerly accompanied the swastika is dropped. It is likely that Wahrām I Kušānšāh wears this headgear, not only on his coins, but on a silver bowl now in the Hermitage. The king is shown mounted, slaying with his sword the first of two boars charging from a thicket. The only variation in the crown is that the opened flower is simplified to a closed flower as on later Kushano-Sasanian coins.<sup>20</sup>

<sup>19</sup> Ammianus Marcellinus 19.13.

<sup>20</sup> Herzfeld, *Kushano-Sassanian Coins*, p. 22; E. Porada, *The Art of Ancient Iran* (New York, 1965), fig. 117; V. Lukonin, *Persia 2* (New York/Cleveland, 1967), no. 147. On another silver vessel, one is tempted to regard the royal lady wearing a pearl-adorned circlet with ram’s horns and a pomegranate instead of the opened flower as a Kušānbānbišn, “queen of Kušān:” *Sasanian Silver. Late Antique and Early Mediaeval Arts of Luxury from Iran*. (University of Michigan, Museum of Art, August–September 1967) (Ann Arbor, 1967), p. 101, no. 13.

On scyphate no. 6 Wahrām wears a serrated crown topped by a ring of pearls; the flower is slightly larger. The royal figure has become more thick and squat, while Šiva's face is dissolving. The swastika has disappeared. The development in Balkh (no. 8) is similar, as regards the king's figure and the flower. Also, the royal diadem-ribbons are now about the same size as on the southern issues. But Šiva's face is still intact; and the *triratna* and swastika (although reversed) with dot remain. A key-shaped astral symbol is added above the *triratna*. The much cruder no. 9 in the south again, has essentially the same symbol below the *tamga*. It may represent the full moon, which, on third and fourth-century *drahms*, occurs conjoined with a crescent, located above the fire altar and opposite the sun disk. Wahrām's final scyphate issue is from Balkh (no. 9). As before, the degeneration of the design is slower than in the south. Šiva's figure is still easily recognizable, the king less gnome-like than on no. 8. His royal crown, however, is somewhat corrupted. The *triratna* at last gives way to the *tamga*, but the swastika with dot is retained.

Wahrām's copper, in contrast to Hormizd's, is quite sparse. But a chronological order seems possible. No. 11, although much worn, shows the king's bust apparently with his early crown; the inscription is uncertain. The motif of stepped fire altar with bust appears on the reverse. No. 12 depicts the king with the ram's-horn crown of no. 5; his name is given in Middle Persian script. The reverse type is the conical fire altar with armed bust, which is continued on no. 13. The obverse of the latter shows the king with his later crown and manages to include the word "king" in the inscription.

The great extent of the province Kušān seems to have been maintained during the brief reign of Hormizd I Šāhānšāh (272–273). Renowned as a warrior, he reputedly defeated and exacted tribute from the people of Transoxania—perhaps when he was Kušānšāh. He is also said to have received tribute from Indians and the king of Kābul.<sup>21</sup> One might speculate that Hormizd did not have the time or possibly the desire to appoint a new Kušānšāh. In any case, Wahrām soon succeeded as Šāhānšāh (273–276); little is known of his short rule, aside from his im-

<sup>21</sup> Al-Tha'ālibī, *Histoire*, p. 499; *KAP* XVIII.22.

prisoning Mānī. He may have campaigned in Sagastān.<sup>22</sup> A Kušānšāh is not attested for this time.

In the period of Wahrām II Šāhānšāh (276–293), Sasanian family rivalries began to become acute. Wahrām appointed his brother Hormizd as governor of Khorāsān, i.e., as Kušānšāh. The latter rebelled by 279, gathering Gēl and Saka troops along with his own Kushans. Wahrām was forced to make an unfavorable peace with Rome in 283 so that he might deal with eastern affairs. The revolt was apparently soon crushed. The king's son Wahrām was appointed Sagānšāh; the office of Kušānšāh must also have been filled—according to the Kushano-Sasanian coins, by Pērōz II.<sup>23</sup>

Only one coin type of Hormizd II Kušānšāh survives. The virtual ending of coinage in precious metals and the reduction of the copper may signify a curbing of the Kušānšāh's power. More importantly, the economy of Kušān was probably achieving greater integration with that of the rest of the empire. Continuing a separate coin standard would be neither politically nor economically useful with Sasanian power so well established in Khorāsān. Hormizd's copper issue is in the style of Wahrām 12–13 and has the same reverse. Hormizd II's crown could be a conscious imitation of that of his brother, the Šāhānšāh. It consists of a pearl-adorned circlet mounted with a pair of wings and with the closed flower element on a standard. The reverse inscription remains as usual; the obverse bears: 'wḥlmzdy MLK', "Hormizd, king."

Pērōz II's gold issue is apparently the last. This coin was, perhaps, essentially in the tradition of the special issues; like Wahrām I.10, it carries the mint mark *hi*. But in fabric, design, and execution, it compares with the early scyphate issues. The king's figure is well-proportioned, and the bands of his diadem are of the thinner form. Also all the symbolic elements are present; although, somewhat strangely, there are only six grenetis under the swastika. The king wears the crown which is clearer on the copper coins—a fluted circlet topped

<sup>22</sup> Providing D. J. Paruck correctly read *skst'n* on a *drahm* ("Observations on Five Sasanian Coins," *JNSI* 1939, p. 67): the plate is indistinct.

<sup>23</sup> Al-Tha'ālibī, *Histoire*, p. 503; Herzfeld, *Paikuli* 1, p. 42; J. Marquart, *Ērānšahr nach der Geographie des Ps. Moses Xorenac'i* (Berlin, 1901), p. 36. Pērōz' identity is uncertain, but Wahrām had a cousin of that name, son of Šāpūr Mēšūnšāh (ŠKZ 26/21/51).

with a crescent and, as on Hormizd II's crown, the closed flower element on a standard. The neat inscription identifies him as BOGO PIRŌ-ZO OÖZORKO KOŠONOŠAUO. The style of the reverse is also conservative. Šiva's back hair is straight and his head enclosed in a nimbus. However he lacks the diadem found on all other gold issues. The usual inscription is present but poorly executed.

Although Pērōz II Kušānšāh issued only two copper types, they show an important transition in the later coinage. No. 2 is the last Kushano-Sasanian issue to use the reverse motif of conical altar with armed bust and the last with inscriptions in Middle Persian script. The obverse has *pylwey š'*, "Pērōz, king;" the reverse has "exalted god." The crown worn by Pērōz's bust is fluted; above it is a crescent, within which is the closed flower element. No. 3 carries a similar bust, but the king's head is somewhat thicker. The obverse apparently also bore the first inscription in Bactrian script on Kushano-Sasanian copper; but only traces of it (probably +PIROZO) have been discerned. The anepigraphic reverse shows the massive fire altar with bust (= Hormizd I.10).

Wahrām Šāhānšāh, attempting to succeed his father as Šāhānšāh, was defeated by his great-uncle Narseh. Whatever part the Kušānšāh may have played in the struggle of 293, he and the other eastern kings soon submitted to Narseh.<sup>24</sup> The subsequent fate of the Kušānšāh during Narseh's troubled reign (293–302) is uncertain. The minting of imperial gold *dēnars* with the designation "Marw" may indicate a hiatus in this office.<sup>25</sup> The situation in the east is likewise unclear for Hormizd II Šāhānšāh's reign (302–309): but this frontier seems to have remained stable through the first half of Šāpūr II Šāhānšāh's reign (309–379). In 327 the king was visited by "Slōg, judge of Jāwēdšāpūr and Kābul;" hence Sasanian power still held in southern Kušān.<sup>26</sup> The last of the Kušānšāhs, moreover, were still able to reach the Oxus.

<sup>24</sup> The Kušānšāh, Xwariznšāh, Pārdānšāh, and Makurānšāh are mentioned in the fragmentary conclusion of Narseh's Paikuli inscription (Herzfeld, *Paikuli* 1, pp. 204–5).

<sup>25</sup> Herzfeld, *Kushano-Sassanian Coins*, p. 48, no. 28; A. D. Mordtmann, "Zur Pehlevi Münzkunde," *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 1880, p. 43, no. 138.

<sup>26</sup> The visit was clearly in regnal year 18: *Corpus Inscriptionum Iranicarum. Part III. Vol. II. Portfolio III: Minor Inscriptions of Kartir* (London, 1963), pls. 85,

If one assumes a hiatus in the office of Kušānšāh for part of Narseh's reign and perhaps all of Hormizd II's, due to a fear of rebellion in Khorāsān, then the last four Kušānšāhs all served Šāpūr II. But the first of these could belong to Hormizd II's time. The copper of the anonymous governor is anepigraphic, a feature in contrast with the other late issues. The king's bust is depicted with a tall, fluted crown; its close resemblance to Narseh's crown on the Šāhānšāh's Naqsh i Rostam relief might support the dating to Hormizd II's reign.<sup>27</sup> Use of the flower elements has come to an end. The reverse motif is the usual one for the later coins: the stepped fire altar with bust (= Wahrām I.11). The altar's shaft is not widened, as it tends to be on the other issues. But only three specimens are available, and so this contrast remains of uncertain value for the chronology.

The governor Kawād is the last to wear a princely crown; it bears a lion protome. He may have been a brother of Šāpūr II, holding office during the latter's minority. The obverse of his two types shows his bust and name, KOBODO. The reverse of no. 1 is the stepped altar with thickened shaft and the bust; that of no. 2 is the massive, unstepped altar and bust (= Pērōz II. 3).

The last Kušānšāhs, Hormizd III and Wahrām II, ruled until about 350. Their copper (only three specimens of these are published) shows them with modest headdresses. Hormizd wears a low, fluted circlet, Wahrām a plain one apparently surmounted by a ring of pearls. Hormizd's reverse has the altar with narrow shaft and emphasizes the bust. Wahrām's altar has the thick shaft. The names are somewhat effaced (O . . . and . . . RONO) on the coins. But it must have been these two nobles who had their names inscribed in Bactrian script at the cave complex of Kara Tepe. First came *bag Ūromazd xwadēw*, "Lord Hormizd, King." Later *bag Waraharan xwadēw* made several visits, the first before 330, the last after 338 but before 368.<sup>28</sup>

87. Compare R. N. Frye, "The Persepolis Middle Persian Inscriptions from the Time of Shapur II," *Acta Orientalia* 30 (Copenhagen, 1966), pp. 83–93.

<sup>27</sup> Fr. Sarre and E. Herzfeld, *Iranische Felsreliefs* (Berlin, 1910), p. 84 and pl. IX; R. Ghirshman, *Iran, Parthians and Sassanians* (London, 1962), p. 176.

<sup>28</sup> The relative chronology of the two is certain. The absolute chronology arrived at by J. Harmatta is in harmony with the coinage: "The Bactrian Wall-Inscriptions

In the years 350–370, Khorāsān received a heavy influx of Chionite Huns and the frontier of direct Sasanian rule retreated toward Marw. There remained no function for a Kušānšāh. Henceforth Sasanian influence in Kušān would be exercised through monetary subsidies and the threat of military action. In his bloody campaigns of 351–58, Šāpūr II apparently succeeded in enforcing the submission of the invading tribes, but his hold on their loyalty remained precarious.<sup>29</sup> It was probably in the course of these campaigns that Šāpūr minted gold *dēnars* at Marw and issued the last Kushano-Sasanian coins.

Šāpūr's ordinary copper issue resembles the preceding ones. The obverse carries his bust (which varies considerably in quality, as does Kawād's) and name, ŠOBORO. The king wears his imperial crown. The fire altar on the reverse may have either the narrow or thick shaft. But Šāpūr also issued a unique type. The obverse of this is inspired by the gold scyphates; the king stands in Vasudeva's pose, worshipping at an altar and grasping a trident. Two of the old symbols are used, both of which had occurred on the last Balkh scyphate (Wahrām I.9). The *cintāmaṇi* is placed at the king's left elbow, instead of at his armpit. The swastika (reversed) is between his right leg and the altar. A comparatively elaborate inscription is given: ŠOBORO KOŠONO ŠAO, "Šāpūr Kušānšāh." The reverse shows "the god Mihr" (BAGO MIIRO) enthroned, in three-quarter profile facing right.

Type no. 2 suggests that Šāpūr had absorbed the term "Kušānšāh" into his own titulature and reduced the status of the governor at Marw. This office was certainly an ordinary governorship in the reign of Wahrām V (420–438). When that king repulsed a Hephthalite invasion from the region of Marw, he established his brother Narseh, probably in that city, with the lesser title of *marzbān ī Kušān*, "margrave of Kušān."<sup>30</sup>

from Kara Tepe," *Buddiiskie peshchery Kara-Tepe v starom Termeze* (Moscow, 1969), pp. 82–125; see nos. 17, 49–50, 52.

<sup>29</sup> Ammianus Marcellinus 17.5.1 and 19.2.3 seems to assume that Šāpūr's Chionite allies in 359 are eastern, not Caucasus Huns. Elise Vartapat (Langlois, *Collection des historiens* 2, p. 195) indicates renewed disorders. According to Faustus of Byzance (Langlois, *Collection* 1, pp. 298–9), Balkh was independent and hostile in the 370's—probably an indication of the Kidarite kingdom's beginning.

<sup>30</sup> Al-Tha'ālibī, *Histoire*, p. 559; al-Ṭabarī, *Geschichte*, p. 102; compare Marquart, *Ērānšahr*, p. 53.

The chief heirs of the Sasanian Kušānšāhs and their administration were the Kidarite dynasty in Toxāristān (ca. 375–440). To judge from surviving seals, Sasanian nobles and officials may have continued to govern under the new Chionite masters.<sup>31</sup> “Farnwistāx, Kidarite prime minister” could be an Iranian dressing his hair in Chionite fashion. But “Sagolax, chief minister” is certainly Chionite.<sup>32</sup> These and other officials not only hold Sasanian titles and offices but also wear Sasanian-inspired crowns. Farnwistāx’s is a type of palmate crown topped with pearls; Sagolax’s cap bears a perching bird holding a pearl in its beak. It is thus not surprising that the Kidarite dynasty, in its early years, issued crude gold scyphates inspired by Wahrām I Kušānšāh’s latest issues.<sup>33</sup> All examples carry the *tamga* and lack the swastika and, usually, the *cintāmaṇi*. The king’s crown has two shapes; either it bears a zigzag pattern and its top is smooth or it is palmate. Both have the closed flower element and two pairs of wide diadem-ribbons. On coins showing the former crown, a looping “figure-eight” device occurs beneath the *tamga*; coins with the palmate crown have a seven-dot rosette or a square or a “reverse question-mark” hook. The usual reverse motif is quite corrupt. The obverse inscription is often not entire; it is intended to be BAGO KIDARO OOZORO KOŠONO ŠO, “Lord Kidara, Great King of Kušān.”<sup>34</sup>

<sup>31</sup> OAXŠO I PŌGO BAGO, “Lord Waxš, son of Pōg” (*Corpus Inscriptionum Iranicarum* II, 2) and OARAURANO ŠAUBABO, “Wahrām, satrap” (*CII* II, 4) wear Kidarite crowns. Alternatively, they may have governed Chionites in western Kušān for the Sasanians.

<sup>32</sup> FARNO[OI]STAXO KĒDAIRO UAZOROXTO (*CII* II, 5) and SAGOLAXO OAZORKA FORMALARO (*CII* II, 6). Compare the anonymous UAZOROXTO (*CII* II, 2), ASBAROBIDO “cavalry-commander” (*CII* II, 8), MALOLARO “cupbearer” (*CII* III, 5). See *CII* for literature.

<sup>33</sup> The hoard of Tepe Maranjan, dating to the reign of Šāpūr III, contained one example of Wahrām I no. 7: R. Curiel and D. Schlumberger, *Trésors monétaires d’Afghanistan* (Paris, 1953), pl. XIII, 1.

<sup>34</sup> Crown A: Göbl, “Münzprägung der Kušān,” no. 341; Curiel and Schlumberger, *Trésors* pls. XIV, 5, XV, 1–2. Crown B: *CII*, VII, 4–5; Bivar, “Kushano-Sassanian Coin Series,” p. 15; Herzfeld, *Kushano-Sassanian Coins*, p. 47, no. 22; E. Babelon, *Traité des monnaies grecques et romaines III. Monnaies orientales* (Paris, 1933), no. 19; Curiel and Schlumberger, *Trésors* pls. XIII, 2, XIV, 1–4, XV, 3–5; specimens in ANS collection. Perhaps the popularity of the palmate crown among the Chionites is primarily due to the Kidaras.

Subsequent Kidarite issues follow the general Chionite custom and imitate the Sasanian silver *drahm*. The king depicted wears either a palmate crown or an imitation of a Sasanian imperial crown. The king's own, smooth face is shown, not the bearded face of Wahrām which had remained on the scyphate issue. Perhaps a last vestige of the Sasanian Kušānšāhs, and certainly another example of the interaction between Iranians and Chionites in Kušān, is seen in the coins of "Wahrām, Kayanian" (*kdy wlhl'nd*). His face is shown bearded and his name given in Middle Persian script with a Sasanian epithet. His *drahms* are in Chionite style, and on the majority of issues he wears a Kidarite palmate crown. One issue, however, combines the palmate crown with two Sasanian ram's horns, reminding one of Wahrām I's type 5. That issue and one bearing the simple palmate crown are also inscribed with *pe*, perhaps simply another reminiscence of the Kushano-Sasanian coinage.<sup>35</sup>

TABLE I

## Synchronism of the Sasanian Kušānšāhs.

<i>Šāhānšāh</i>	<i>wuzurg Kušānšāh</i>
Ardašīr I (224–241)	Ardašīr (226–23 ?)
	Pērōz I (23 ?–242)
Šāpūr I (241–272)	Hormizd I (242–253)
	Wahrām I (253–272/3)
Hormizd I (272–273)	
Wahrām I (273–276)	?
Wahrām II (276–293)	Hormizd II (276–284)
	Pērōz II (284–29 ?)
Narseh (293–302)	— ? (29 ?–302)
Hormizd II (302–309)	Anonymous (302–309)

<sup>35</sup> The palmate issues are: *CII*, VIII, 6; Bivar, "Kushano-Sassanian Coin Series," no. 40; Göbl, *Dokumente* 1, Emm. 7–10; M. F. C. Martin, "Coins of Kidara and the Little Kushāns," *JASB Num. Suppl.* 47 (1937–1938), nos. 26–28, 30–36. The latter two issues are a) Bivar, "Kushano-Sassanian Coin Series," no. 39; Göbl, *Dokumente* 1, Emm. 5; Martin, "Coins of Kidara," nos. 22–24; and b) *CII*, VIII, 5; Göbl, *Dokumente*, Emm. 6; Martin, "Coins of Kidara," no. 29.



Šāpūr II (309–379)	Kawād (ca. 310–320)
	Hormizd III (ca. 320–325)
	Wahrām II (ca. 325–34 ?)
	Šāpūr II (351–359)
	Šāhānšāh

TABLE II

## The Kushano-Sasanian Issues

Ardašīr	1. Æ Bivar, <i>JNSI</i> 1956, 19. 2. Æ <i>CII</i> IX, 2–3; Bivar, <i>JNSI</i> , 22; Herzfeld 3; Göbl, “Neuerworbene,” 489; Bataille 5; Wilson XVII, 14; ANS (PLATE XXIII, 1).
Pērōz I	1. Æ <i>CII</i> VIII, 1 (PLATE XXIII, 2); Bivar, <i>JNSI</i> , 16; Herzfeld 5; Bataille 8; Babelon II,12; Paruck, D.J. <i>Sāsānian Coins</i> (Bombay, 1924) 98. 2. Æ Bivar, <i>JNSI</i> , 20; Göbl, “Neuerworbene,” 496; Bataille 5. 3. Æ Herzfeld 6; (Herzfeld 1 ?); Paruck 274. 4. Æ Bivar, <i>JNSI</i> , 33.
Hormizd I	1. Æ <i>CII</i> V,2; Bivar, <i>JNSI</i> 2; Göbl, “Münzprägung,” 320; Bataille 9. Æ <i>CII</i> IX,4; Bivar, <i>JNSI</i> , 23; Herzfeld 16; Bataille 18; ANS (PLATE XXIII, 3). 2. Æ Half weight: Cunningham IV,4; Full weight: <i>CII</i> V,3; Bivar <i>JNSI</i> , 3; Herzfeld 15; Göbl, “Münzprägung,” 323–324; Bataille 10; Cunningham IV,3; Smith 13; Wilson XX,240; ANS (PLATE XXIII, 4). Æ <i>CII</i> IX,6; Bivar, <i>JNSI</i> , 24a; Göbl, “Neuerworbene,” 492, 497; Bataille 12; ANS (PLATE XXIII, 5). 3. Æ Herzfeld 9; Göbl, “Münzprägung,” 321–322, 325, 327. Æ <i>CII</i> IX,5; (Bivar, <i>JNSI</i> 24 ?); Herzfeld 16; ANS (PLATE XXIII, 6). 4. Æ Quarter weight: Göbl, “Münzprägung,” 326; Whole weight: <i>CII</i> V,4; Bivar, <i>JNSI</i> , 4; Göbl, “Münzprägung,” 328.

5. *A CII* V,5; Bivar, *JNSI*, 5; Göbl, "Münzprägung," 331.
6. *A CII* V,6; Bivar, *JNSI*, 6; Göbl, "Münzprägung," 329–330; Bataille 11; ANS (PLATE XXIII, 7).
7. *A CII* VIII, 2 (PLATE XXIII, 8); Bivar, *JNSI* 17; Herzfeld 11.  
*Æ CII* IX,8–9; Bivar, *JNSI*, 26; Herzfeld 12; Göbl, "Neuerworbene," 545; Bataille 13; Paruck 180; ANS (PLATE XXIII, 9, 10).
8. *A CII* VIII,3 (PLATE XXIII, 11); Bivar, *JNSI*, 18; Herzfeld 10; Cunningham IV,2.
9. *Æ CII* IX,7; Bivar, *JNSI*, 25; Herzfeld 13; Göbl, "Neuerworbene," 512; Bataille 14; Cunningham XIV, 6; Paruck 183; ANS.
10. *Æ CII* IV,9; Bivar, *JNSI*, 35; Herzfeld 17.
11. *Æ CII* X,1–3; Bivar, *JNSI*, 27; Herzfeld 14; Göbl, "Neuerworbene," 526; Cunningham XIV,7; Paruck 184–186; Smith XXIV,3; ANS.
12. *Æ* Paruck 182; ANS.

## Wahrām I

1. *A CII* VI,2; Bivar, *JNSI*, 7.
2. *A CII* VI,6 (PLATE XXIII, 12); Bivar, *JNSI*, 11; Göbl, "Münzprägung," 336.
3. *A CII* VI,4 (PLATE XXIII, 13); Bivar, *JNSI*, 9; Herzfeld 7; Göbl, "Münzprägung," 333–334; Cunningham IV,12.
4. *A* Bataille 17.
5. *A CII* VII,2 (PLATE XXIV, 1); Bivar, *JNSI*, 13; Göbl, "Münzprägung," 337; Cunningham IV,15.
6. *A CII* VI,5 (PLATE XXIV, 2); Bivar, *JNSI*, 10; Göbl, "Münzprägung," 338–339; Wilson XX,241; Curiel and Schlumberger XIII.1.
7. *A CII* VI,3 (PLATE XXIV, 3); Bivar, *JNSI*, 8; Göbl, "Münzprägung," 332.
8. *A CII* VII,3; Bivar, *JNSI*, 14; Göbl, "Münzprägung," 340; Bataille 16; Cunningham IV,13; ANS.
9. *A CII* VII,1; Bivar, *JNSI*, 12; Göbl, "Münzprägung," 335.
10. *A CII* VIII,4 (PLATE XXIV, 4); Bivar, *JNSI*, 47.

11. *Æ* Bivar, *JNSI*, 38; ANS.
  12. *Æ* *CII* X,9-10; Bivar, *JNSI*, 31; Herzfeld 19; Bataille 15; Cunningham IV,16-17; Paruck 331-332.
  13. *Æ* *CII* X,7-8 (PLATE XXIV, 5); Bivar, *JNSI*, 30; Herzfeld 8; Cunningham IV,14; ANS.
- Hormizd II      1. *Æ* *CII* X,6 (PLATE XXIV, 6); Bivar, *JNSI*, 29; Herzfeld 24; Göbl, "Neuerworbene," 552; Paruck, 187-189; Smith XXIV, 4; ANS.
- Pērōz II      1. *Æ* *CII* VI,1; Göbl, *Dokumente* Vol. 3, Taf. 3, VII,1.  
                  2. *Æ* *CII* X,4-5 (PLATE XXIV, 7); Bivar, *JNSI*, 28; Herzfeld 31; Göbl, "Neuerworbene," 548; Bataille 23; Paruck 191-193; ANS.  
                  3. *Æ* Bivar, *JNSI*, 37; Göbl, "Neuerworbene," 480; Bataille 22; Paruck 190; Smith XXIV,7.
- Anonymous      1. *Æ* Herzfeld 27; Babelon LVIII,6; ANS (PLATE XXIV, 8).
- Kawād      1. *Æ* Bivar, *JNSI*, 36; Cunningham IV,8; Paruck 181; Babelon XLIII,13-14; Wilson XVII, 16; ANS (PLATE XXIV, 9).  
                  2. *Æ* Göbl, "Neuerworbene," 463, 465; Bataille 20-21; Smith XXIV,5; Wilson XVII,19; ANS.
- Hormizd III      1. *Æ* *CII* IV,10; Bivar, *JNSI*, 38; Göbl, "Neuerworbene," 478.
- Wahrām II      1. *Æ* *CII* IV,8; Bivar, *JNSI*, 34.
- Šāpūr II      1. *Æ* (a) Babelon LIV,19-20; ANS (PLATE XXIV, 10).  
                  Šāhānšāh      (b) *CII* IV,7; Bivar, *JNSI*, 32; Cunningham IV,9; Wilson XVII,13,  
                  2. *Æ* *CII* IX,1 (PLATE XXIV, 11); Bivar, *JNSI*, 21; Herzfeld 2; Göbl. "Neuerworbene," 495; ANS.

The inventory of Kushano-Sasanian coin-types is not yet completed. For example, the collection of the National Museum of Afghanistan, Kabul, which is currently under study, contains a number of badly worn bronzes. These furnish additional variations in the shape of the Sasanian fire-altar and variant crowns. Thus it may be expected that more governors will find their proper places in the chronology, most probably within the period A.D. 293-351.

## THE Umayyad Fulūs of Mosul

(PLATE XXV)

GERNOT ROTTER

For Kūfa, Baṣra and the Ḥijāz, the names and the chronology of the Umayyad governors are for the most part well known, whereas for other provinces the written sources generally do not supply us with the usual annual lists of governors. Unless we are in possession of sufficient numismatic material which indicates the names of the governors, we are dependent upon scattered information which happens to survive in historical reports to reconstruct corresponding lists for these provinces. Since the post-reform Umayyad gold and silver coins never show the names of provincial governors, the only relevant material which remains are the copper coins (*fulūs*). However, in the Umayyad period even the *fulūs* only very seldom bear the name of the governor together with the mint-name, with the exception of the issues of Mosul (al-Mawṣil). Beginning with the year 99 H./A.D. 717–8, all *fulūs* from this mint show the name of the respective governor.

Until now a systematic synopsis and an historical analysis of previously published specimens have not been made. It is true that John Walker, in his *Catalogue of the Arab-Byzantine and Post-Reform Umayyad Coins* (London, 1956), has listed not only the specimens found in the British Museum but also the corresponding coins of other published collections. He was able to present six different types in all, four of them with the name of the governor. Analyzing my own collection of Umayyad *fulūs*, however, and comparing it with the standard catalogues as well as with the historical literature that has been edited in the meantime (mainly: al-Azdī, *Ta'rikh al-Mawṣil*), I found that some specimens which formerly had not been identified or were catalogued as belonging to the 'Abbāsid period were in fact issued under the Umayyads. As a result, the number of types can now be increased to twelve.

I would like to express here my thanks to Christian Robin (Paris) and I. G. Dobrovolsky (Leningrad) for supplying me with photos and casts of coins in the Bibliothèque Nationale and the Hermitage. The

information on the coins in the collection of the American Numismatic Society was kindly furnished by Michael L. Bates, who devoted much time to the problem.

Mosul, situated on the left bank of the Tigris opposite the ancient town of Nineveh and already a Christian monastic settlement in Persian times,<sup>1</sup> was occupied according to al-Balādhurī (d. 279 H./A.D. 892) without opposition by 'Utba b. Farqad al-Sulamī in the year 20 H./A.D. 640–1.<sup>2</sup> According to the same source, Harthama b. 'Arfaja was appointed 'Utba's successor during the reign of the caliph 'Umar I. (until 23 H./A.D. 644). By letting Arabs settle at Mosul, Harthama elevated its status to a *miṣr*.<sup>3</sup> The fortification of this settlement with walls, which made it a real town, was carried out, however, only in the time of 'Abd al-Malik (65–86 H./A.D. 685–705). The reports about that are contradictory:

1. Mu'āfa b. Ṭa'ūs: "The one who furnished Mosul with stones [i.e. paved it] was Ibn Talīd,<sup>4</sup> the commander of the police of Muḥammad b. Marwān b. al-Ḥakam, who was the governor of Mosul, al-Jazīra, Armīnia and Adharbaijān."<sup>5</sup>

2. Al-Wāqidī: "'Abd al-Malik appointed his son Sa'īd b. 'Abd al-Malik . . . . . governor of Mosul and his brother Muḥammad governor of al-Jazīra and Armīnia. Sa'īd constructed the walls of Mosul . . . . and paved it."<sup>6</sup>

3. Madā'inī: "'Abd al-Malik b. Marwān appointed his brother Muḥammad governor of Mosul, and Muḥammad constructed the walls of Mosul in the year 80."<sup>7</sup>

<sup>1</sup> *Encyclopedia of Islam* Vol. 3 (Leiden) s.v. Mosul and literature cited there.

<sup>2</sup> Aḥmad b. Yaḥyā al-Balādhurī, *Kitāb al-Futūḥ*. Edited by Ṣalāḥ al-Dīn al-Munajjid. (Cairo, 1956), p. 407. *Bibliotheca Geographorum Arabicorum* Vol. 5. Aḥmad b. Muḥammad b. al-Faqīh, *Kitāb al-buldān* (Leiden, 1885), p. 128: 'Iyāḍ b. Ghanam is said to have been the conqueror and 'Utba the governor from the year 20 H. onward.

<sup>3</sup> Al-Balādhurī: *maṣṣarahā*. 'Alī b. Aḥmad b. Sa'īd b. Ḥazm, *Jamharat ansāb al-'arab*. Edited by 'Abd al-Salām M. Hārūn (Cairo, 1966), p. 367 (where incorrectly rendered 'Arfaja b. Harthama): *jannada al-Mawṣil*.

<sup>4</sup> I.e. al-Walīd b. Talīd. See below pp. 14–18.

<sup>5</sup> Al-Balādhurī, *Futūḥ*, p. 408.

<sup>6</sup> Al-Balādhurī, *Futūḥ*, p. 408.

<sup>7</sup> Abū Zakarayā Yazīd b. Muḥammad al-Azdī, *Ta'rikh al-Mawṣil*. Edited by 'Alī Ḥabībī (Cairo, 1967), p. 25.

The analysis of these reports is made even more complicated by the statement of al-Madā'inī that Yūsuf b. Yaḥyā b. al-Ḥakam was the governor of Mosul during the whole period of 'Abd al-Malik's reign.<sup>8</sup> Al-Azdī, aware of these contradictions, assumed that 'Abd al-Malik appointed Yūsuf b. Yaḥyā probably only after Muḥammad b. Marwān had left his office,<sup>9</sup> but this hardly corresponds with other statements, according to which Muḥammad kept his office at least until 91 H./A.D. 709–10.<sup>10</sup> Finally, al-Balādhurī seems to regard the year 75 H. as the date of the appointment of Yūsuf b. Yaḥyā over Mosul (the same year in which Ḥajjāj became governor of Iraq).<sup>11</sup>

The contradictory nature of these traditions—and not only of these but also of many reports concerning the following governors of Mosul—results from the fact that the later historians and especially al-Azdī, with the situation of their own time in mind, took it for granted that Mosul had always been the capital or at least a part of the province of al-Jazīra. That this is by no means correct becomes evident from the above-mentioned quotation of al-Wāqidī<sup>12</sup> as well as from relevant numismatic material, which indicates that during the whole period of Umayyad rule Mosul was a separate province<sup>13</sup> distinct from al-Jazīra, and its governors were officially appointed directly by the Caliph himself. From an analysis of the above-mentioned reports in this sense it clearly follows that Muḥammad b. Marwān was the governor of al-Jazīra, Armīnia and Adharbaijān from 73 H./A.D. 692–3 (death of Muṣ'ab b. az-Zubair)

<sup>8</sup> Al-Azdī, *Ta'rikh*, p. 24.

<sup>9</sup> Al-Azdī, *Ta'rikh*, p. 25.

<sup>10</sup> Khalīfa b. Khayyāt, *Ta'rikh*. Edited by A.D. al-'Umarī (Nejef, 1967), p. 301; 'Alī b. Muḥammad b. al-Athīr, *al-Kāmil fi'l-ta'rikh*. (Leiden, 1866 —) Vol. 4, p. 119; Muḥammad b. Aḥmad al-Dhahabī, *al-'Ibar fi khabar man ghabar*. Edited by S. al-Munajjid (5 vols., Kuwait, 1960–1966), Vol. 1, p. 105; 'Umar b. Aḥmad b. al-'Adīm, *Zubdat al-ḥalab min ta'rikh Ḥalab*. Vol. 1. Edited by S. al-Dahhān (Damascus, 1951), p. 44: until 90 H./A.D. 708–9.

<sup>11</sup> Al-Balādhurī, *Kitāb ansāb al-ashraf*. Ms. Istanbul, Reisülküttap no. 598. Vol. 11, Edited by W. Ahlwardt (Greifswald, 1883), p. 189.

<sup>12</sup> See above, p. 166.

<sup>13</sup> For the expansion of the province of Mosul see *Bibliotheca Geographorum Arabicorum* Vol. 7: Aḥmad b. 'Umar b. Rustah, *Kitāb al-a'lāq al-naḥṣa*. (Leiden, 1892), p. 106.

onward, while Sa'īd b. 'Abd al-Malik, and following him Yūsuf b. Yahyā, were governing Mosul.

By having been fortified during 'Abd al-Malik's reign, Mosul gained the necessary prerequisite for a mint. Consequently there are no pre-reform coins of Mosul of the Arab-Byzantine type. Mosul, the most recent mint of the region, joined Ḥarrān (the capital of al-Jazīra at that time),<sup>14</sup> al-Ruhā and Nišībīn, which had been mints since pre-Islamic times. From Ḥarrān (Carrhae) and al-Ruhā (Edessa) there exist specimens of the Arab-Byzantine type.<sup>15</sup>

The Umayyad *fulūs* of Mosul can be divided into three categories: coins with mint only; those with mint and date; and coins with mint and name of governor but lacking date.

#### LIST OF ABBREVIATIONS

ANS	Collection of the American Numismatic Society.
B	H. Nützel, <i>Katalog der Orientalischen Münzen</i> , Vol. 1, Berlin 1898.
BM	<i>A Catalogue of the Muhammadan Coins in the British Museum Vol. 2: A Catalogue of the Arab-Byzantine and Post-Reform Umayyad Coins</i> . By John Walker. London, 1956.
BM(Lane)	<i>Catalogue of Oriental Coins in the British Museum Vols. 1, 9</i> . By Stanley Lane-Poole. London, 1875, 1889.
C	'Abdarrahmān Fahmī, <i>Fajr as-sikkat al-'arabiyya</i> . Cairo, 1965.

<sup>14</sup> Without doubt Ḥarrān was the mint of the Umayyad dirhams on which the name of the province of al-Jazīra is found; see Aḥmad b. 'Alī al-Maqrīzī, *Sudhūr al-'uqūd ft dhikr al-nuqūd*. Edited by M. Baḥr al-'Ulūm (Nejef, 1967), p. 7, where it is stated that Marwān, the last Umayyad caliph and former governor of al-Jazīra, minted dirhams at Ḥarrān. This is supported by a statement in Abū 'Abd Allāh Muḥammad b. Sa'd, *Kitāb al-ṭabaqāt al-kabīr* (9 vols., Leiden, 1904-1928), Vol. 7, p. 178, from which we learn that the *bait al-māl* of the province was at Ḥarrān. The generally accepted theory of Jazīrat b. 'Umar (a place in the north of the province of Mosul) as the mint town of these dirhams must be abandoned.

<sup>15</sup> *A Catalogue of the Muhammadan Coins in the British Museum Vol. 2: A Catalogue of the Arab-Byzantine and Post-Reform Umayyad Coins*. By John Walker (London, 1956), pp. lxxvii, lxxx, xci, 25-6, 28, 242, 259. Another mint town, Sarūj, probably should be added, but all the specimens that have hitherto come to light are problematical regarding the place name; see BM, pp. lxlii, 264 (only post-reform type).

- I** Isma'īl Ghalib Edhem, *Meskūkāt-i qadimeh-yi islāmīyah qatalōghū*. Istanbul, 1894.
- I/A** İbrahim and Cevriye Artuk, *İstanbul arkeoloji müzeleri teşhirdeki İslamī sikkeler kataloğu*. Vol. 1. Istanbul, 1971.
- L** W. Tiesenhausen, *Moneti vostochnavo khalifata*. St. Petersburg, 1873.
- M** C. O. Castiglioni, *Monete Cufiche dell'I.-R. Museo di Milano*. Milan, 1819.
- Miles/Ant** George C. Miles, Islamic Coins. *Antioch on the Orontes* Vol. 4 Pt. 1. Edited by F. O. Waage (Princeton, 1948), pp. 109–124.
- Miles/RIC** George C. Miles, *Rare Islamic Coins* (NNM No. 118). New York, 1950.
- P** H. Lavoix, *Catalogue des monnaies musulmanes*. Vol. 1. Paris, 1887.
- R** Author's collection, unpublished. The collection contains ca. 450 Umayyad *fulus* acquired in 1968–1969 while I was Wissenschaftlicher Referent at the Orient-Institut der Deutsche Morgenländische Gesellschaft in Beirut. Nearly all the coins come from Syria, Palestine and Iraq. Since they were acquired through dealers the exact provenance is unknown. In 1974 the collection was incorporated into the numismatic collection of the Berner Historisches Museum; a catalogue of the collection of Islamic coins in this museum is in preparation by the author.
- UM** University Museum, University of Pennsylvania, Philadelphia, on loan to ANS.

A. WITH MINT ONLY

1. Minted between 86–96 H./A.D. 705–714



Fig. 1 — P 1515



Obv.:		Rev.:
الله احد الله الصمد		محمد رسول الله
Margin: لا اله الا الله وحده لا شريك له		Margin: بسم الله ضرب هذا الفلس بالموصل جار
Linear border.		Linear border.
Specimen	Weight (gm.)	Diameter (mm.)
BM 928	4.43	21.50
B 2041		21.50
I 288		20.00
L 2633		
P 1515*	4.40	21.00
P 1516	3.85	23.00
ANS ex-Wood	3.45	20.00
ANS ex-Newman	3.29	18 × 21

BM 928 shows on the obverse الصمد instead of الصلبد. جار in the marginal legend of the reverse looks like ِ on BM 928 and B 2041 and is written ار on L 2633. The legend is correct on the specimens of Paris and Istanbul. L 2633 was published in 1858 by Soret,<sup>16</sup> but neither he nor Krehl in 1860<sup>17</sup> could give an explanation for the ار. Stickel<sup>18</sup> tried to read (sic) الموصل. That جار is the correct reading is proved not only by P 1515 and I 288 but also by *fulūs* of the neighboring mint-towns of Ḥarrān and Armīnia, which in legend and design (i.e. the marginal legend is not separated from the center by a border) show a striking resemblance.<sup>19</sup>

For the dating of the coin see the discussion of type B.

<sup>16</sup> F. Soret, "Quatrième lettre sur les médailles orientales inédites de la collection M. F. Soret," *RBN* 1858, p. 122.

<sup>17</sup> L. Krehl, review of a Soret letter (see note 16 above), in *Göttinger Gelehrten Anzeiger* (Göttingen, 1860), p. 232.

<sup>18</sup> J. G. Stickel, "Ergänzungen und Berichtigungen zur Omajjidischen Numismatik," *Zeitschrift der Deutschen Morgenländischen Gesellschaft* Vol. 39 (Leipzig, 1885), p. 28.

<sup>19</sup> See BM, pp. 242, 229.

B. WITH MINT AND DATE

2. 97 H./A.D. 715-6



Fig. 2 — BM 929

Obv.:

الله  
احد الله  
الصمد

Margin: لا اله الا الله وحده  
لا شريك له

Beaded border.

Rev.:

محمد  
رسول  
الله ﷺ

Margin: ضرب هذا الفلص  
بالموصل سنة سبع و تسعين

Beaded border.

Specimen	Weight (gm.)	Diameter (mm.)
BM 929*	3.41	21.50
B 2040		21.00
I 282		25.00
L 2632		
ANS ex-Wright	3.87	21.00

The date is no longer legible on the specimens of Berlin and Leningrad whereas in the date in I 282 only تسعين is clear. The symbol on the reverse is reproduced by Nützel for B 2040 without the two points at its sides and by Tiesenhausen for L 2632 as ↓. The ANS specimen has only the سبع legible.

Types A and B, which represent the two oldest known coins of Mosul, are remarkable in many respects. The obverse legend الله احد الله الصمد (Qur'ān CXII, 1-2 without قل هو) is very seldom found on Umayyad fulūs (though it is on dinars and dirhams) and, with only one exception,

is restricted to the mints of Mosul and nearby Ḥarrān and Armīnia.<sup>20</sup> The exception is a series of undated *fulūs* from Ṭabariyya in Palestine which, however, are distinguished not only geographically but also by an additional symbol of a palm-branch on the reverse.<sup>21</sup> The small symbol on the reverse of the dated *fals* of Mosul shows a striking similarity with the symbol on the reverse of some *fulūs* minted at ‘Ammān, which Bellinger guessed to be a trefoil<sup>22</sup> but looks more like a *fleur-de-lis*.

Since the date on three of the four known specimens of type B/2 is not legible, and there seem to be some differences in the symbol, it is possible that they were minted one or two years before or after 97 H.<sup>23</sup> As long as there is no proof for this, though, we have to consider the year 97 H./A.D. 715–6 as the date *ante quem* for the minting of the undated *fulūs* of type A/1. As the date *post quem* ‘Abd al-Malik’s reform in 76 H./A.D. 695–6, or rather the fortification of Mosul, come into question. This is only a theoretical possibility, however, because we can conclude from the overwhelming mass of post-reform *fulūs* with exclusively religious formulae (i.e. without date, mint and governor) that these must have been minted for several years after the reform. In fact no dated *fals* has yet come to light which was minted earlier than 87 H./A.D. 706. Furthermore, type A/1 is so similar to the dated *fulūs* of type B/2 that it is doubtless their immediate forerunner.

Unfortunately the literary sources do not tell us who was the governor of Mosul in the last decade of the first century H. Nor do we know if Yūsuf b. Yaḥyā still held his office after the death of ‘Abd al-Malik. The similarity of A/1 and B/2 with the *fulūs* from Ḥarrān (i.e. al-Jazīra) and Armīnia, it is true, suggests a joint administration of the three provinces with Ḥarrān as its center for the years in question. Muḥammad b. Marwān is said to have been governor of al-Jazīra until 91 H./A.D.

<sup>20</sup> BM, p. 229, no. 746, pp. 242–243, nos. 785–788. See also a unique *fals* from Dābil, the capital of Armīnia, which was published by Karabacek in a review of BM(Lane) Vol. 1 in NZ 1876, p. 360.

<sup>21</sup> BM, p. 269, nos. 898–899.

<sup>22</sup> Alfred R. Bellinger, *Coins from Jerash, 1928–1934*, NNM No. 81 (New York, 1938), p. 550.

<sup>23</sup> *Fulūs* with mint and date earlier than 97 H. are hitherto known only from Damascus and Nişibīn, see BM, pp. 253, 285.

709–10 according to one source<sup>24</sup> and until the end of Walid's caliphate in 96 H./A.D. 715 according to another.<sup>25</sup> The sporadic remarks about his immediate successors are so contradictory that it appears useless to cite them here.<sup>26</sup> Anyway, a joint administration of Mosul and al-Jazīra in those years would have been exceptional and remains hypothetical as long as we have no literary proof for it.

C. WITH MINT AND NAME OF GOVERNOR

3. Yaḥyā b. Yaḥyā al-Ghassānī (99–101 H./A.D. 717–720)



Fig. 3 — R 1

Obv.:

Palm-branch with eight or nine panicles at each side, surrounded by a rectangle.

Margin: لا اله الا الله وحده

Beaded border.

Rev.:

محمد  
رسول  
الله

Margin: بسم الله امر الامير

يحيى بن يحيى بالموصل

Area enclosed by beaded border; margin enclosed by beaded border.

Specimen	Weight (gm.)	Diameter (mm.)
R 1*	2.15	21.00
P 1627	2.60	21.00

<sup>24</sup> See above, p. 169.

<sup>25</sup> Ibn Khayyāt, *Ta'rikh*, p. 315.

<sup>26</sup> Compare Ibn Khayyāt, *Ta'rikh*, p. 325, where we probably should add "al-Jazīra" after Arminia, and Aḥmad b. 'Alī b. Hajar al-'Asqalānī, *Tahdhīb al-tahdhīb* (12 vols., Hyderabad, 1325–1327 H./A.D. 1907–1909), vol. 7, p. 168.

Neither specimen is well preserved, both being very thin and smooth. Furthermore, R 1 is overstruck on a previously unknown type of *fals* on the obverse of which only امر is still legible. Even the name of the governor is hardly discernible, but the characteristic forms of the two Kūfic letters *ḥā'* and *yā'* are clear enough to reconstruct the name.

When Lavoix published the specimen P 1627 he reconstructed the name Yaḥyā b. Muḥammad, who was the second 'Abbāsid governor of Mosul (133 H./A.D. 750–1),<sup>27</sup> although he could read only Yaḥyā. The name is preserved better on the coin of my collection and the style, symbol and weight<sup>28</sup> of the *fals* indicate its Umayyad origin. The palm branch as a numismatic symbol is common on Umayyad *fulūs*<sup>29</sup> while on 'Abbāsid ones it is unknown.

Yaḥyā b. Yaḥyā b. Qais al-Ghassānī, member of the 'Amr b. Māzin, the principal tribe of the Ghassān in Syria, is listed in the Arab biographical literature not because of his short governorship over Mosul, but because of his reputation as a Syrian jurist. His father Yaḥyā b. Qais held public office as commander of the police of Damascus under Marwān b. al-Ḥakam and it seems that his uncle Sulaimān b. Qais had also not been without political influence.<sup>30</sup> There are only a few short references in the historical literature to the governorship of Yaḥyā b. Yaḥyā. The Damascene historian Abū Zur'a (d. 281 H./A.D. 894) mentions that he "was the governor of Sulaimān over al-Jazīra and that 'Umar b. 'Abd al-'Azīz during his caliphate confirmed him in his office.<sup>31</sup> According to this statement, where Mosul again is confused with al-Jazīra, we would have to place the beginning of Yaḥyā's governorship between Jumādā II 96 H./A.D. Feb.–March 715 and Ṣafar 99 H./A.D. Sept.–Oct. 717. But, since we already know another type of *fals* dated from the year 97 H. (B/2), the year 96 and at least a part of 97 must be

<sup>27</sup> Al-Azdī, *Ta'rikh*, p. 134; Ibn al-Athīr, *Kāmil*, Vol. 5, p. 350.

<sup>28</sup> See below, p. 194.

<sup>29</sup> This is found especially on *fulūs* of Palestinian origin with the mint names Filasṭīn, Ramla, Ṭabariyya, 'Asqalān and Ghazza, but it occurs also on *fulūs* from Damascus, Tanja (North Africa) and Nišībīn.

<sup>30</sup> Ibn Sa'd, *Ṭabaqāt*, Vol. 7, Pt. 2, p. 168; Ibn Hajar, *Tahdhīb*, Vol. 11, p. 299.

<sup>31</sup> 'Abd al-Raḥmān b. 'Amr Abū Zur'a, *al-Ta'rikh*, Ms. Istanbul, Fatih No. 4210, f. 42b.

excluded. Moreover, between the year 97 and the beginning of Yaḥyā's governorship there must have been another governor who issued the type of *fals* on which R 1 was overstruck. It is more likely, therefore, that it was 'Umar II who first appointed Yaḥyā governor, as other historians say.<sup>32</sup> To bestow a governorship on a man who was well-known for his piety and learning better suits the style of 'Umar's reign. It is significant that Yaḥyā lost his office with the death of 'Umar.<sup>33</sup> According to a remark in al-Azdī's *History of Mosul*, Yaḥyā had a difficult struggle with the rapacious and still very Bedouin-like inhabitants of the town and did not feel very much at home.<sup>34</sup>

The only thing that we learn about his administration is that there was an increase of the *diya*, the *wergeld* to be paid by the non-Muslim subjects, to 48 *dirhams* for a rich man, 24 for a man of average wealth and 12 for a poor man.<sup>35</sup>

It was under Yaḥyā's rule that political troubles lasting about two years began. Al-Azdī indicates this in citing Yaḥyā himself, "'Umar b. 'Abd al-'Azīz bestowed on me the governorship of Mosul. At that time the Khārijī forces revolted."<sup>36</sup> No doubt these Khārijī are identical with the rebels who usually are spoken of as Ḥarūrītes and who were led by Shaudhab, *alias* Bisṭām, of the tribe of the Banū Yashkur. Of the two existing historical reports, which are contradictory in many respects, only al-Madā'inī explicitly places the events in the surroundings of Mosul.<sup>37</sup> In the beginning both reports agree that open hostilities started only after the death of 'Umar II when, according to al-Madā'inī, Shaudhab turned toward Mosul and killed the governor of the town, whose name

<sup>32</sup> Al-Azdī, *Ta'rikh*, p. 3; Abū Zur'a, *al-Tarikh*, f. 42b; Ibn Hajar, *Tahdhib*, Vol. 11, p. 299, where Yaḥyā is wrongly mentioned as *qāḍī* of Mosul. See also al-Dhahabī, *Ibar*, Vol. 1, p. 185.

<sup>33</sup> Obviously Yaḥyā turned back from Mosul to Damascus, where he died in the 30's of the 2nd century H. See al-Azdī, *Ta'rikh*, p. 157.

<sup>34</sup> Ibn Hajar, *Tahdhib*, Vol. 11, p. 300 citing al-Azdī, probably from the first part of his *History of Mosul*, which is not preserved.

<sup>35</sup> Al-Azdī, *Ta'rikh*, p. 3.

<sup>36</sup> Al-Azdī, *Ta'rikh*, p. 3.

<sup>37</sup> Al-Madā'inī's report is preserved in al-Baladhūri, *Ansāb*, Ms. 2, f. 83a ff; the second report goes back to Abū 'Ubaida and is preserved in Muḥammad b. Jarīr al-Ṭabarī, *Ta'rikh al-rusul wa'l-mulūk* (15 vols., Leiden, 1879-1901), Vol. 2, pp. 1347-1349, 1375-1379; and al-Azdī, *Ta'rikh*, pp. 6-8.

unfortunately is not given. He must have been the successor of Yaḥyā b. Yaḥyā.<sup>38</sup> Al-Madā'inī's further statements allow the conclusion that Shaudhab remained at Mosul and only left it when Maslama b. 'Abd al-Malik, after the elimination of Yazīd b. al-Muhallab at Kūfa, could turn toward Mosul. Maslama killed Shaudhab in Jūkhā.<sup>39</sup> If al-Ṭabarī's statement that Yazīd b. al-Muhallab was killed in the month of Ṣafar 102 H./A.D. Aug.-Sept. 721 is correct, we have to assume that Shaudhab ruled the town for about half a year. Al-Madā'inī's report appears more convincing because it is hardly possible that all the troop movements which are reported by both historians could have happened during the last four months of the year 101 H. in which Abū 'Ubaida still placed the death of Shaudhab.<sup>40</sup>

The identity of the governor of the neighboring province of al-Jazīra under 'Umar II is again problematical. Ibn al-Athīr, following an unnamed source, lists the death of 'Abd al-'Azīz b. Ḥātim b. al-Nu'mān al-Bāhilī under the year 103 H./A.D. 721-2 and goes on: "He was the governor of 'Umar b. 'Abd al-'Azīz over al-Jazīra."<sup>41</sup> This 'Abd al-'Azīz b. Ḥātim was, according to Ibn Khayyāṭ, governor of the provinces of Arminia and Adharbaijān at the end of the reign of the caliph Sulaimān in 99 H. and still held the office for a short time under 'Umar II, but then was relieved by 'Adī b. 'Adī al-Kindī who "appointed Sawāda Abū al-Ṣabāḥ b. Sawāda al-Kindī as his representative over al-Jazīra."<sup>42</sup> The statement of Ibn Khayyāṭ allows the conclusion that 'Abd al-'Azīz already ruled not only Arminia and Adharbaijān but also al-Jazīra. Sawāda, too, must have held his office for only a short time. All the sources except Ibn Khayyāṭ agree that probably in the year 100 H. but not later than the beginning of Yazīd's caliphate, 'Umar b. Hubaira al-Fazārī was appointed over al-Jazīra. 'Umar b. Hubaira left al-Jazīra at the turn of the year 102/103 H. in order to accept the governorship of Iraq.<sup>43</sup>

<sup>38</sup> Al-Balādhurī, *Ansāb*, Ms. 2, f. 84b.

<sup>39</sup> For details see the article *Yazīd b. al-Muhallab* in *Encyclopedia of Islam*.

<sup>40</sup> Al-Ṭabarī, *Ta'rikh*, Vol. 2, p. 1375.

<sup>41</sup> Ibn al-Athīr, *Kāmil*, Vol. 5, p. 106.

<sup>42</sup> Ibn Khayyāṭ, *Ta'rikh*, pp. 329 f.

<sup>43</sup> Al-Azdl, *Ta'rikh*, pp. 16, 37; al-Ṭabarī, *Ta'rikh*, Vol. 2, p. 1349; Ibn al-Athīr, *Kāmil*, Vol. 5, pp. 55, 101.

4. Al-Ḥurr b. Yūsuf (108 or 109–113 H./A.D. 727–731–2)



Fig. 4 — R 2

Obv.:

لا اله  
الا الله  
وحده

Margin: ○○○○

Area enclosed by two beaded borders. Margin enclosed by beaded border.

Rev.:

محمد  
رسول  
الله

Margin: بسم الله مما امر به  
الامير الحر بن يوسف بالموصل  
Area enclosed by beaded border. Margin enclosed by beaded border.

Specimen	Weight (gm.)	Diameter (mm.)
R 2*	2.10	20.00
BM 930	1.67	20.00
P 1510	2.40	28.00
P. 1511	1.90	20.00
I 283		20.00
Miles/Ant 73		
ANS ex-Wood	1.84	20.50

All specimens except R 2 have on the margin of the obverse: ○○○○.<sup>44</sup> The coin was first published by Karabacek in 1876.<sup>45</sup> Before Lane-Poole,<sup>46</sup> Karabacek had read the name correctly. With the exception of P 1510 all specimens have lost much weight and size.

No *fulūs* have hitherto come to light which bear the name of a governor who ruled between 101 H./A.D. 720 and 108 H./A.D. 727. Al-Azdī is the only one who mentions the name of the governor of Mosul for the time

<sup>44</sup> A photograph of a specimen belonging to A. S. DeShazo shows the annulets clearly as ○○○○.

<sup>45</sup> See Karabacek's review of BM (Lane) Vol. 1 in *NZ* 1876, p. 365.



of Yazīd's caliphate (101–105 H./A.D. 720–4), Marwān b. Muḥammad b. Marwān, who in 127 H./A.D. 744 was to become the last ruler of the Umayyad dynasty.<sup>47</sup> But al-Azdī starts again from the supposition that Marwān was ruling al-Jazīra from Mosul, which he considered to be its capital. Remarks such as *'alā 'l-aghlab fīmā ra'aitu min as-sīra*<sup>48</sup> show that he himself was not sure. Since Ibn Khayyāṭ, on the other hand, lists the otherwise unknown Fā'id b. Muḥammad al-Kindī and al-'Urs b. Qais b. Shu'ba b. al-Arqam as Yazīd's governors of al-Jazīra,<sup>49</sup> it seems quite certain that Marwān was the governor of the province of Mosul.

In the person of the caliph Hishām a man came to power (Sha'bān 105 H./A.D. Jan. 724) who not only brought the whole Umayyad empire to a final period of glory, but also showed special interest in the province of Mosul. During the caliphate of his father 'Abd al-Malik he himself had lived for some time at Mosul, had bought lands from a branch of the tribe of Azd where he had planted date palms and (olive?) trees, and had constructed a castle for himself in what later became the quarter of the Banū Wā'il.<sup>50</sup> It is no wonder, therefore, that he appointed an experienced relative to rule over his favorite province. Al-Ḥurr b. Yūsuf b. Yaḥyā b. al-Ḥakam had been governor of Egypt since the beginning of Dhu'l-Ḥijja 105 H./A.D. May 724,<sup>51</sup> his father Yūsuf had been governor of Mosul under the caliphate of his cousin 'Abd al-Malik,<sup>52</sup> and his sister Umm Ḥakīm was one of Hishām's wives.<sup>53</sup>

Al-Azdī mentions al-Ḥurr as governor of Mosul for the year 106 H./A.D. 724–5,<sup>54</sup> but this is contrary to al-Kindī who states that al-Ḥurr was governor of Egypt until Dhu'l-Qa'da 108 H./A.D. Feb.–March 727.<sup>55</sup>

<sup>46</sup> BM(Lane) no. 170.

<sup>47</sup> Al-Azdī, *Ta'rikh*, pp. 16–18, 22.

<sup>48</sup> Al-Azdī, *Ta'rikh*, pp. 16, 22.

<sup>49</sup> Ibn Khayyāṭ, *Ta'rikh*, p. 342.

<sup>50</sup> Al-Azdī, *Ta'rikh*, pp. 24, 172.

<sup>51</sup> Muḥammad b. Yūsuf al-Kindī, *Kitāb al-wulāt wa-kitāb al-quḍāt*. Edited by R. Guest (Leiden/London, 1912), pp. 73 ff.

<sup>52</sup> See above, p. 167.

<sup>53</sup> Al-Azdī, *Ta'rikh*, p. 24, where it is stated that Hishām first married Āmina bint Yaḥyā, an aunt of al-Ḥurr, and later Umm Ḥakīm.

<sup>54</sup> Al-Azdī, *Ta'rikh*, p. 24; Ibn al-Athīr, *Kāmil*, Vol. 5, p. 132.

<sup>55</sup> Al-Kindī, *Wulāt*, pp. 73 ff.

As there are many examples for the unreliable dating of al-Azdī, while al-Kindī can refer to a long tradition of historiography in Egypt and is able to give us detailed information about several political events of al-Ḥurr's governorship, his dating is more trustworthy. Al-Ḥurr, therefore, could have assumed his new office at Mosul only in the last days of the year 108 H./A.D. March 727 or in the beginning of 109 H./A.D. March-Apr. 727.

Mosul owes to al-Ḥurr the initiative for the construction of the "covered channel" (*al-nahr al-makshūf*) which led from the Tigris. through the town and must have had considerable economic consequences. Although he apparently started this project immediately at the beginning of his governorship and was supported financially by the Caliph himself, he had not finished it when he died in Dhu'l-Ḥijja 113 H./A.D. Feb. 732.<sup>56</sup> Moreover, al-Ḥurr became famous for the construction of a "painted castle" (*al-manqūsha*), which in 135 H./A.D. 752-3, when it was confiscated by the 'Abbāsids, was still in the possession of his family.<sup>57</sup>

5. Yaḥyā b. al-Ḥurr (end of 113–beginning of 114 H./A.D. Feb.–March 732)



Fig. 5 — R 3

Obv.:

لا اله  
الا الله  
وحده

Rev.:

محمد  
رسول  
الله

<sup>56</sup> Al-Azdī, *Ta'rikh*, pp. 26, 33.

<sup>57</sup> Al-Azdī, *Ta'rikh*, pp. 156 f.; Ibn al-Athīr, *Kāmil*, Vol. 5, pp. 123, 176. At the time of Ibn al-Athīr (13th century A.D.) the castle was still known under its old name, though it was in ruins.

Margin: —●—●—●—●—	Margin: بسم الله امر الامير يحيى بن الحر بالموصل
Area and margin enclosed by beaded borders.	Area and margin enclosed by beaded borders.
<i>Specimen</i>	<i>Weight (gm.)</i> <i>Diameter (mm.)</i>
R 3*	2.35                      22.00

This type of *fals* is hitherto unpublished. The present specimen was probably overstruck on a *fals* of type C/4, out of which its design was developed.<sup>58</sup>

Al-Ḥurr b. Yūsuf had appointed his son Yaḥyā as his successor in the leadership of his clan as well as in his office, but he obviously was not confirmed in the governorship by the caliph. Thus Yaḥyā's rule only lasted from the day of the death of his father until the news had reached the caliph Hishām, who appointed al-Walīd b. Talīd.<sup>59</sup> Nevertheless Yaḥyā remained as head of his influential family in the castle of his father, *al-manqūsha*, and even survived the first years of the 'Abbāsid caliphate in spite of his close relationship with the Umayyads. In 135 H./A.D. 752–3 he was killed while fighting against the 'Abbāsid governor Ismā'īl b. 'Alī, whereupon the possessions of the family were seized and its surviving members had to leave the town.<sup>60</sup>

#### 6. al-Walīd b. Talīd (114–121 H./A.D. 732–739)



Fig. 6 — R 4

<sup>58</sup> See especially R 2.

<sup>59</sup> Al-Azdī, *Ta'rikh*, p. 33.

<sup>60</sup> Al-Azdī, *Ta'rikh*, pp. 156 f.; his brother Salāma was well known as a poet: al-Azdī, *Ta'rikh*, p. 29; both brothers fighting against the Kharijī Bisām in 126 H.: al-Balādhurī, *Ansāb*, Ms. 2, f. 180a.

Obv.: Within two intersecting squares  
forming an octagon:

لا اله  
الا الله  
وحده

Beaded (?) border.

Rev.:

Within a square:

محمد  
رسول  
الله

Margin, starting right:

بسم الله امر الوليد بن تليد بالموصل  
Beaded border.

<i>Specimen</i> <sup>a1</sup>	<i>Weight (gm.)</i>	<i>Diameter (mm.)</i>
R 4	2.70	20.00
R 5	1.90	22.00
R 6*	3.00	21.00
BM 931	2.43	21.00
BM 932	2.90	21.00
BM 933	2.87	22.50
BM 934	2.15	21.00
BM 935	2.57	22.50
BM 936	2.42	21.00
BM 937	2.47	21.00
BM 938	2.44	21.00
B 2042	2.60	} Between 20.00 and 21.50
B 2043		
B 2045		
P. 1513		22.00
I 284		20.00
I 285		19.00
C 1002	2.32	23.00
C 1003	1.90	20.00
I/A 142	3.05	22.00
L 2637(3031)		
L 2637(3032)		
L 2637(3033)		

<sup>a1</sup> Since this coin is to be found in nearly all the relevant collections, only those specimens have been listed of which some details, such as size and division of marginal reverse legend, are known.

## Miles/Ant 74

## Miles/Ant 74

ANS ex-Wood	2.66	20.50
ANS ex-Wood	2.76	22.00
ANS ex-Wood	2.22	20.00
ANS ex-Wood	2.92	20.00
ANS ex-Newell	2.43	20.00
ANS ex-Newell	2.04	20.50
ANS ex-Newell	1.47	22.00
ANS ex-Newman <sup>63</sup>	2.88	20.00

The design of this *fals* is extremely rare. From the Umayyad period there is only one other coin (from Barka in North Africa) with a similar geometrical design.<sup>63</sup> The unusual name of the governor as well as the insufficient literary sources led to several misinterpretations of this coin.<sup>64</sup> An examination of P 1513 (previously attributed to a certain al-Walīd b. Mu'āwiya) and of L 2637 (previously attributed to al-Walīd b. Barka, al-Walīd b. Yazīd or al-Walīd b. Thābit, all names which are not to be verified in literature as governors) proved that they, too, are coins of al-Walīd b. Talīd.<sup>65</sup>

The reverse legend varies in length and is divided differently among the four marginal segments:

<sup>63</sup> Overstruck on type C/4 (al-Ḥurr b. Yūsuf).

<sup>64</sup> P 1558. A similar design from the beginning of the 'Abbāsid period on a *fals* from the mint of Rayy: George C. Miles, *The Numismatic History of Rayy*, NS No. 2 (New York, 1938), p. 41.

<sup>65</sup> For earlier discussion of the coin see C. M. Fraehn, "Summarische Übersicht des orientalischen Münzkabinettes der Universität Rostock, und Anzeige der in demselben befindlichen unedirten oder vor andern bemerkenswerthen Stücke," *Bulletin historico-philologique* (St. Petersburg, 1844), Pt. 1, cols. 9f., pl. 3 no. 12; O. G. Tychsen, *Introductionis in rem numarium muhammedanorum. Additamentum I* (Rostock, 1796), p. 22, pl. 2 no. 20; J. G. Stickel, "Noch einmal die omajjadische Askalon-Münze und ein Anhang," *Zeitschrift der Deutschen Morgenländischen Gesellschaft* Vol. 40 (Leipzig 1885), pp. 85 f., nos. 199–201; and the discussion of L 2640.

<sup>65</sup> Mr. Dobrovolsky informed me that the Hermitage collection contains three specimens of this No. L 2637 (now registered as 3031, 3032 and 3033). L 2642 is now lost. From the insufficient description by Tiesenhausen, it is possible that this coin really represented an otherwise unknown Umayyad *fals* of Mosul.

	Specimens	Division of legend			
		right	below	left	above
a.		بسم الله امر الوليد بن تليد بالموصل			
i)	BM 931, 932	بسم الله امر	الوليد	بن تليد	بسم الله امر
ii)	R 6	بسم الله امر	الوليد	بن تليد	بسم الله امر
b.		بسم الله امر الامير الوليد بن تليد بالموصل			
i)	BM 933, I 284, L 2687 (3032), ANS ex-Wood (2), ANS 72.100	بسم الله امر	الامير الوليد	بن تليد	بسم الله امر
ii)	BM 934, ANS ex-Wood	بسم الله امر	الامير الوليد	بن تليد	بسم الله امر
iii)	R 4, L 2637 (3033), ANS ex-Newell	بسم الله امر	الامير الوليد	بن تليد	بسم الله امر
c.		بسم الله امر به الامير الوليد بن تليد بالموصل			
i)	R 5, BM 936, 937, L 2637 (3031), C 1002, 1003, ANS 72.100	بسم الله امر به	الامير الوليد	بن تليد	بسم الله امر به
ii)	BM 935, P 1513	بسم الله امر به	الامير الوليد	بن تليد	بسم الله امر به
d.		بسم الله مما امر به الامير الوليد بن تليد بالموصل			
i)	BM 938, B 2042, 2043, 2044, 2045, ANS ex-Wood, ANS ex-Newell	بسم الله مما	امر به	الامير الوليد	بن تليد
ii)	ANS ex-Newell	بسم الله مما	امر به	الامير الوليد	بن تليد

It is tempting to derive a chronological succession from these four variations in length since the legend could have developed gradually from the simplest form *بسم الله امر الوليد بن تليد بالموصل* to the longest one *بسم الله مما امر به الامير الوليد بن تليد بالموصل*. This seems to be confirmed by the fact that BM 932, of the shortest length, is overstruck on an older *fals* (probably of Yaḥyā or his father al-Ḥurr). However, there is no proof from other numismatic examples for such an hypothesis. On the contrary, al-Ḥurr b. Yūsuf, for instance, minted *fulūs* with the formula of the fourth length while his son Yaḥyā used the formula of the second length.

On the overstruck *fals* BM 932 Walker read with certainty سنة عشر on the marginal legend of the obverse. The photo of the coin (BM pl. 30) does not justify this interpretation. The letters in question seem nothing else than a part of the two beaded borders used on the obverse of the dies of al-Ḥurr. The serration of the outer border can easily be misinterpreted as the Kufic letter *sīn*. Moreover, one of the small annulets between the two borders which are also typical for the *fulūs* of al-Ḥurr can still be recognized. Furthermore, the indication of a date on Umayyad *fulūs* from Mosul after the turn of the century would be very unlikely.

Al-Walīd b. Talīd al-ʿAbsī like al-Ḥurr b. Yūsuf apparently represented an influential and well-established family of Mosul to which his successor Abū Quḥāfa also belonged. But the literary sources give us no detailed information about his person or his family. We therefore do not know how he was related to the Umayyad dynasty. At the time of the Caliph ʿAbd al-Malik, sometime between 73 and 96, he was already leader of the police of Mosul<sup>66</sup> and in 102 H./A.D. 720–1 he was to be found among the generals of Yazīd II in his fight against Yazīd b. al-Muhallab.<sup>67</sup>

Al-Walīd was appointed governor of Mosul directly by the Caliph Hishām in the beginning of the year 114 H./A.D. 732,<sup>68</sup> while Marwān b. Muḥammad became governor of al-Jazīra, Armīnia and Adharbaijān.<sup>69</sup> During the reign of al-Walīd the province of Mosul was again shaken by Khārījī riots.<sup>70</sup> Bahlūl b. Bishr al-Shaibānī, also known as Kuthāra,

<sup>66</sup> Al-Balādhurī, *Futūḥ*, p. 408; see also p. 166 above.

<sup>67</sup> Al-Balādhurī, *Ansāb*, Ms. 2, f. 108a, where two different versions are found. For the events, see *Encyclopedia of Islam*, Vol. 4 pp. 1259 f.

<sup>68</sup> Al-Azdī, *Taʾrīkh*, p. 33.

<sup>69</sup> This is nowhere stated *expressis verbis*. Ibn Khayyāṭ, *Taʾrīkh*, p. 377 only speaks of Armīnia, while al-Balādhurī, *Ansāb*, Ms. 2, f. 174a and al-Azdī, *Taʾrīkh*, p. 35 report that Hishām appointed Marwān governor of Armīnia and Adharbaijān. Since Armīnia, Adharbaijān and al-Jazīra seem to have been ruled during the Umayyad caliphate by one governor who himself appointed a subgovernor for each province (see, for instance, Ibn Khayyāṭ, *Taʾrīkh*, p. 385, although in this case Ibn Khayyāṭ only mentions Armīnia), it is quite possible that the names of the two other provinces should be added in the text. No other name for a governor of al-Jazīra is mentioned.

<sup>70</sup> Hitherto al-Ḥurr (after Yaḥyā b. Yaḥyā al-Ghassānī) had to deal again with a small group of Khārījī forces, but was not really threatened by them. See al-Madāʾinī in al-Balādhurī, *Ansāb*, Ms. 2, f. 132a.

who had the support of some parts of the population of Mosul and al-Jazīra, apparently even forced al-Walīd to leave the town in 119 H./A.D. 737. Only after Hishām had ordered the governor of al-Jazīra to help al-Walīd with his own army was Bahlūl defeated and killed near "a monastery between al-Jazīra and Mosul."<sup>71</sup>

Concerning the rule of al-Walīd, al-Azdī stresses the fact that he intensified the effort to construct the channel already begun by al-Ḥurr and finished it at great expense shortly before he died in 121 H./A.D. 739.<sup>72</sup>

7. Al-Walīd b. Bukair = (?) Abū Quḥāfa al-Muzanī (121–125 H./A.D. 739–743)



Fig. 7 — P 1512



Fig. 8 — I 286

Obv.:  
Within octagon:  
لا اله  
الا الله  
وحده

Rev.:  
Within square:  
محمد  
رسول  
الله

<sup>71</sup> Al-Ṭabarī, *Ta'rikh*, Vol. 2, pp. 1622–1628 (according to Abū 'Ubaida) and al-Balādhurī, *Ansāb*, Ms. 2, ff. 132a–133a (according to al-Madā'inī).

<sup>72</sup> Al-Azdī, *Ta'rikh*, p. 43.



Beaded border.

Margin: P 1512:]

بسم الله مما أمر به الأمير  
الوليد بن بكر (?) بالموصل

I 286:

بسم الله مر (sic) الوليد بن بو (sic) بكر بالموصل

Specimen	Weight (gm.)	Diameter (mm.)
P 1512*	2.10	20.00
I 286*		22.00

The legend of P 1512 is by no means clear. What was read by Lavoix as بکیر looks like بله and in fact could also be interpreted as بکر. Even تلید can not be excluded since the letter د really does not look very Kufic here and could easily be a ل. I 286 with "al-Walīd b. Abī Bakr,"<sup>73</sup> on the other hand, is clearly legible. Walker put these two coins together for the first time,<sup>74</sup> but did not discuss their differences in legend and design. He also regarded L 2637 as a specimen of this type, but there is no doubt that it belongs to the issues of al-Walīd b. Talīd.<sup>75</sup>

Even if we accept the reading of P 1512 as بکیر or بکر there still remain some doubts that the two coins were struck by the same governor. The following reflections led me to put them together. First, since the design of the two coins follows the same system as the *fulūs* of al-Walīd b. Talīd it is likely that they were struck by his immediate successor. Then, even if we take into consideration that an *ism* (in this case al-Walīd) generally occurs again and again in the same family it seems unlikely that three representatives of a ruling family should bear the same name one after the other. Third, Ibn al-Athīr mentions as governor of Mosul for the year 121 H. a certain al-Walīd b. Bukair,<sup>76</sup> while al-Azdī still mentions al-Walīd b. Talīd in this office.<sup>77</sup> A comparison of the two passages in the works of Ibn al-Athīr and al-Azdī shows that they are identical except for the name, i.e. Ibn al-Athīr took his information from Azdī and probably preserves the right name, while a copyist on

<sup>73</sup> Incorrectly cited by Walker in BM, p. 284 as "al-Walīd b. Bakr."

<sup>74</sup> BM, p. 284.

<sup>75</sup> See above, pp. 180-5.

<sup>76</sup> Ibn al-Athīr, *Kāmil*, Vol. 5, p. 240.

<sup>77</sup> Al-Azdī, *Ta'rikh*, p. 43.

Azdī's *History* apparently regarded the *kunya* Ibn Bukair as a mistake for Ibn Talīd who is mentioned as governor for the six preceding years. Then, from the biographical literature we learn that the names Abū Bakr and its diminutive form Bukair often were used for the same person.<sup>78</sup> Fifth, even if we admit that it is unlikely that on coins, too, the name is given sometimes as Abū Bakr and sometimes as Bukair, there is still the possibility that on P 1512 not Bukair but Bakr has to be read and that the "Abū" dropped out because of lack of space.

If we accept this hypothesis we must—according to Ibn al-Athīr—regard this al-Walīd b. Bukair (or b. Abī Bakr) and not al-Walīd b. Talīd, as the one who finished the channel at Mosul.

From the year 122 H./A.D. 740 to 125 H./A.D. 742–3 al-Azdī mentions as governor of Mosul a certain Abū Quḥāfa al-Muzanī, "a son of the brother of al-Walīd b. Talīd,"<sup>79</sup> and there are some indications which point to the identity of Abū Quḥāfa and al-Walīd b. Bukair. First, in spite of the relatively long governorship of Abū Quḥāfa and the relatively rich numismatic material which we now possess from the last three decades of Umayyad rule for Mosul, no coin has hitherto been reported as bearing the name Abū Quḥāfa. This is not astonishing since Abū Quḥāfa is only a *kunya* and his *ism* is nowhere reported. Then, the design of the *fulūs* of al-Walīd b. Bukair indicates that he was a relative of al-Walīd b. Talīd.<sup>80</sup> Third, Abū Quḥāfa is said to have been a nephew of al-Walīd b. Talīd. Fourth, on the basis of his name it can be concluded that al-Walīd b. Bukair (or b. Abī Bakr) was neither brother nor son of al-Walīd b. Talīd but grandson or nephew. Thus it seems quite obvious that Abū Quḥāfa and al-Walīd b. Bukair are identical.

Abū Quḥāfa remained governor of Mosul until the death of the caliph Hishām in the month of Rabī' II 125 H./A.D. Feb. 743 and probably even some months more, since al-Azdī mentions him expressly as governor under the caliph Walīd II in this year.<sup>81</sup>

<sup>78</sup> See, for instance, Ibn Hajar, *Tahdhīb*, Vol. 1, p. 496.

<sup>79</sup> Al-Azdī, *Ta'rikh*, pp. 45, 50, 53. In the latter place he is said to have been the "son of the sister of al-Walīd b. Talīd" which can explain the different *nisbas* al-Absī and al-Muzanī.

<sup>80</sup> Compare the *fulūs* of al-Ḥurr b. Yūsuf and his son Yaḥyā, pp. 177–80.

<sup>81</sup> Al-Azdī, *Ta'rikh*, p. 53.

Because of their geographical situation, the provinces of al-Jazīra and Mosul formed the link between Syria and Iraq. Thus, after the death of Hishām, Mosul became one of those provinces particularly involved in the bloody fall of the Umayyads. Rivalries among different branches of the Umayyads themselves and a strong resurgence of different Khārijī groups, who tried to use the rise of the 'Abbāsīd *da'wa* in the eastern provinces for their own aims, led to the quick succession of at least five governors within the last seven years of Umayyad rule. It is only natural that not all these governors, who sometimes only ruled for a few weeks or months, were registered by the historians.

8. Ziyād b. (Mu'āwiya?) (between 125 and 127 H./A.D. 743-744)



Fig. 9 — B 2046

Obv.:

لا اله  
الا الله  
وحده

Margin: ° [ ∞∞ ]

Area and margin enclosed by  
beaded (?) borders.

Rev.:

محمد  
رسول  
الله

Margin: [بسم الله امر الامير  
زيد بن... اية ابالمواصل

Area and margin enclosed by  
beaded (?) borders.

Specimen

B 2046\*

Weight (gm.)

Diameter (mm.)

22.00

B 2046 is the only known specimen of this type of *fals*. The obverse of the coin clearly shows that it was overstruck on a coin of the al-Walīd b. Talīd type.

In the historical literature there is no governor recorded who bore the name Ziyād. In spite of that the coin can be dated exactly. Since it was overstruck on a coin of al-Walīd b. Talīd or his successor al-Walīd

b. Bukair, we get as the date *post quem* the second half of the year 125 H./A.D. autumn 743. In fact there is a lacuna of governors between this date and the beginning of the year 127 H./A.D. Oct.-Nov. 744, when al-Qaṭirān b. Akama took over the governorship of the town. Al-Azdī, it is true, mentions as governor of Mosul for the year 126 H./A.D. 743-4 Marwān b. Muḥammad b. Marwān,<sup>82</sup> but from his formulation "governor of Mosul, al-Jazīra, Armīnia and Adharbaijān," it becomes clear that al-Azdī confuses the two different provinces once again. In fact, as we have seen before, Marwān had been governor of the three provinces al-Jazīra, Armīnia and Adharbaijān since 114 H./A.D. 732. For each of these provinces he had apparently appointed subgovernors. For al-Jazīra these were Sulaimān b. 'Abd Allāh (second half of 125 H./A.D. autumn 743) and following him Lu'ay b. al-Walīd, the son of the caliph Walid II.<sup>83</sup>

Since there is no information for a governor of Mosul with the name Ziyād it is especially regrettable that the second half of his name, i.e. the name of his father, is no longer legible. Based on the preserved last two letters it is tempting, however, to read Ziyād b. Mu'āwiya, which would fit well into the lacuna of the coin. If we are right in the supposition that this governor chose the design of the coin, which closely resembles the *fulūs* of al-Ḥurr and his son Yaḥya, with the intention of "Umayyadizing" his coins, we will have to look for him within the Umayyad family or more precisely within the family of Marwān b. Muḥammad, who in al-Jazīra and the neighboring provinces had become the most influential personality. On the occasion of the massacre which the 'Abbāsids later on carried out against the Umayyad family, al-Balādhurī mentions two cousins of Marwān.<sup>84</sup> Al-Walīd b. Mu'āwiya, the first of them, had been an important general of Marwān and his last governor of Damascus.<sup>85</sup> The other one was called Zaid b. Mu'āwiya by al-Balādhurī, but no details about him are available. It might well be that al-Balādhurī wrote the name Ziyād defectively as Zaid and that

<sup>82</sup> Al-Azdī, *Ta'rikh*, p. 56.

<sup>83</sup> Al-Azdī, *Ta'rikh*, p. 56; Ibn al-Athīr, *Kāmil*, Vol. 5, p. 309 mentions a certain 'Abda b. al-Riyāḥ as governor of al-Jazīra for the year 126 H.

<sup>84</sup> Al-Balādhurī, *Ansāb*, Ms. 2, f. 180a.

<sup>85</sup> Al-Balādhurī, *Ansāb*, Ms. 2, f. 194a; al-Azdī, *Ta'rikh*, p. 107.

he was the governor for whom we are looking. This remains hypothetical, since we do not have more convincing numismatic and literary evidence.

9. al-Qaṭirān b. Akama al-Shaibānī (127 – mid-128 H./A.D. 744–5 – spring 746)



Fig. 10 — R 7

Obv.:

Within a square with eight small semicircles at its corners and sides:

لا اله الا  
الله  
وحده

Beaded border.

Rev.:

محمد  
رسول  
الله

Margin: بسم الله امر الامير  
القطران بن اكمة بالموصل  
Area and margin enclosed by  
beaded borders.

Specimen	Weight (gm.)	Diameter
R 7*	2.30	21.00
C 1008	1.66	21.00
ANS ex-Newman <sup>86</sup>	2.35	21.00
ANS ex-Torrey <sup>86</sup>	2.23	22.50

This *fals* was first published by Fahmī in 1965,<sup>87</sup> but he was unable to identify either the mint or the governor in spite of the excellent condition of C 1008. R 7 is again overstruck on a *fals* of al-Walīd b. Talīd whose name is still legible. The small semicircles at the sides and the

<sup>86</sup> The ANS ex-Newman specimen is overstruck on a *fals* of al-Walīd b. Talīd. The reverse legend of the overstrike is almost entirely effaced and illegible, but the distinctive obverse type is clear. The ANS ex-Torrey specimen is also an overstrike, but the undertype is not determinable.

<sup>87</sup> C, p. 29.

corners of the square of the obverse are barely discernable on R 7 but clear on C 1008.

At the beginning of the year 127 H./ (first months of A.D. 744) Marwān b. Muḥammad left al-Jazīra for Damascus to wrest the caliphate from Ibrāhīm. As successor in the governorship of al-Jazīra, Armīnia and Adharbaijān he left behind his brother ‘Abd al-‘Azīz or, according to other sources, his son ‘Abd al-Malik.<sup>88</sup> Probably before leaving for Damascus “Marwān sent (as governor) over Mosul and its districts a man of the Banū Shaibān<sup>89</sup> named al-Qaṭirān b. Akama (who arrived) with a large number of his family and his tribe.”<sup>90</sup> So says al-Azdī for the year 127 H. Al-Qaṭirān b. Akama is also known by other historians, but only as the defender of Mosul against the Kharijī al-Ḍaḥḥāk, by whom he was overcome and killed.<sup>91</sup>

10. al-Ḍaḥḥāk b. Qais, Khārijī rebel in the second half of the year 128 H./A.D. summer 746.



Fig. 11 — R 8

Obv.:

الله  
احد الله  
الصمد

Margin: بسم الله لا اله الا  
الله وحده لا شريك له

Area and margin enclosed by  
beaded borders.

Rev.:

محمد  
رسول  
الله

Margin: امر الضالا بضرب  
هذا الفلوس بالموصل

Area and margin enclosed by  
beaded borders.

<sup>88</sup> Al-Azdī, *Ta'rikh*, pp. 61, 69, 117; Ibn Khayyāt, *Ta'rikh*, p. 391; al-Balādhurī, *Ansāb*, Ms. 2, f. 174b.

<sup>89</sup> I.e., Shaibān b. Bakr who lived around Mosul; see EI<sup>2</sup> s.v. “Bakr b. Wā'il,” p. 964.

<sup>90</sup> Al-Azdī, *Ta'rikh*, p. 68.

<sup>91</sup> Aḥmad b. Zuhair in al-Azdī, *Ta'rikh*, p. 69 and al-Ṭabarī, *Ta'rikh*, Vol. 2, p. 1938; Ibn Khayyāt, *Ta'rikh*, p. 398; al-Balādhurī, *Ansāb*, Ms. 2, f. 183a.

<i>Specimen</i>	<i>Weight (gm.)</i>	<i>Diameter (mm.)</i>
R 8*	3.65	22.00
R 9	2.38	19.00
C 1004	2.10	19.00
L 2635		
BM (Lane) IX.157		
Miles/RIC 104a	3.84	22.00
Miles/RIC 104b	5.22	19.50
ANS ex-Wright	2.60	20.00
ANS ex-Newell	3.94	17.00
ANS 72.100	4.24	22.00
UM	3.54	16.50

In 1851 Soret identified the rather poor specimen L 2635 as a *fals* of al-Ḍaḥḥāk.<sup>92</sup> For a century this remained the only published specimen. Thus Miles was right when he listed the two specimens of his own collection among the "rare Islamic coins."<sup>93</sup> He had apparently overlooked, however, Lane-Poole's mention of a specimen in the British Museum (without reproduction). Since Fahmī in the meantime has published another specimen in Cairo (C 1004) and there are two further specimens in my own collection and three more with the ANS, the coin can no longer be considered rare. All the specimens come from different dies.

New Khārijī riots started in and around Mosul in the second half of the year 126 H./A.D. May-Nov. 744. Al-Balādhurī mentions quite extensively the history of a certain Bisṭām al-Shaibānī who belonged to the Khārijī group al-Baihasiyya<sup>94</sup> and became active in Adharbaijān in the month of Sha'bān 126 H./A.D. May-June 744. During his campaigns in the following year he threatened Mosul at least three times. Once he even succeeded in conquering the town.<sup>95</sup> We do not know exactly when this happened or how long he was able to maintain control.

Also in the month of Sha'bān 126 H., the Khārijī Sa'īd b. Bahdal became active in al-Jazīra. On the first of Ramaḍān 126 H./17 July

<sup>92</sup> Letter to Fraehn, *Mémoires de la Société Impériale d'Archéologie* (St. Petersburg, 1851), No. 28.

<sup>93</sup> Miles/RIC, p. 33.

<sup>94</sup> EI<sup>2</sup>, s.v. "Aloū Bayhas."

<sup>95</sup> Al-Balādhurī, *Ansāb*, Ms. 2, f. 180a.

A.D. 744 he arrived near Mosul where he met a certain Abū Karib who had declared himself *amīr al-mu'minīn* and demanded the leadership of the Khārijī group. They came to an agreement and Sa'īd b. Bahdal led the rebels against Mosul which he occupied apparently without any hostilities. After "several days" he left the town for Shahrāzūr where he died in the beginning of 127 H./A.D. Oct.-Nov. 744 and where al-Ḍaḥḥāk b. Qais took over the leadership of the Khārijī group.<sup>96</sup>

In the following year al-Ḍaḥḥāk succeeded in conquering Kūfa and Wāsiṭ. Invited by "the inhabitants" of Mosul he left his residence at Kūfa and occupied the town after having defeated and killed the Umayyad governor al-Qaṭirān b. Akama in the middle of the year 128 H./A.D. March-April 746. Marwān b. Muḥammad, now caliph, was at that time still engaged at Ḥims in Syria and ordered his son 'Abd Allāh to march against al-Ḍaḥḥāk. Only after 'Abd Allāh was defeated did Marwān become alarmed. He advanced toward Mosul and killed al-Ḍaḥḥāk near Kafartūthā<sup>97</sup> at the end of the same year.<sup>98</sup>

In spite of that the Khārijī forces went on fighting under several leaders. Finally Shaibān b. Abd al-'Azīz al-Yashkurī led the Khārijī troops back to Mosul where they entrenched themselves. Only after several months of siege—the sources differ between nine months and one year—did Marwān succeed in expelling Shaibān, who was later killed in 'Umān.<sup>99</sup>

The *fulūs* of al-Ḍaḥḥāk are remarkable in three respects. First, their weight is much higher than the previous Umayyad specimens. Then, for the first time the obverse of type C bears a marginal legend. Finally, the legend in the center of the obverse (Qur'ān CXII 1–2) had already been used on the *fulūs* which lack the name of the governor (types A and B).<sup>100</sup>

<sup>96</sup> Al-Azdī, *Ta'rikh*, pp. 60, 67; Ibn Khayyāt, *Ta'rikh*, pp. 390, 395; al-Balādhurī, *Ansāb*, Ms. 2, f. 180b.

<sup>97</sup> Yāqūt, *Mu'jam al-buldān*. Edited by F. Wüstenfeld (Leipzig, 1866–1870), s.v.

<sup>98</sup> Besides the sources given in EI<sup>2</sup>, s.v. "al-Dahhāk b. Qays al-Shaybānī," see Ibn Khayyāt, *Ta'rikh*, pp. 398 ff., al-Azdī, *Ta'rikh*, pp. 67 ff. and al-Balādhurī, *Ansāb*, Ms. 2, ff. 180b–185a.

<sup>99</sup> Al-Azdī, *Ta'rikh*, pp. 72–76; Ibn Khayyāt, *Ta'rikh*, pp. 100 f.

<sup>100</sup> See above, pp. 169–70.



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As noted above, there is no governor recorded who bore the name Zuhair b. 'Alqama nor is there an *amīr* of Mosul or any other province with the name 'Alqama who could have been the father of this Zuhair. An important hint is found in the obverse legend, which is apparently unique for Umayyad as well as for 'Abbāsīd *fulūs*. Since the change of numismatic legends generally points to a fundamental change of the ruling dynasty we should look for this Zuhair and his father 'Alqama among the numerous rebels in the provinces of Mosul and al-Jazīra in the last decade of Umayyad rule. This hypothesis is strengthened by the fact that the content of the legend in question very much resembles the Khārījī motto لا إله إلا الله. It seems obvious that this Zuhair was governor of Mosul in the name of one of the rebels already mentioned (for instance Bistām al-Shaibānī or Abū Karb, both in the year 126 H./A.D. 744) or others who were too unimportant and ruled for too short a time to be registered by historians. The possibility cannot be excluded that a certain 'Abd al-Malik b. 'Alqama who was fighting with al-Ḍaḥḥāk at Wāsiṭ in 127 H./A.D. 745 and was killed there,<sup>102</sup> was the brother of this Zuhair.

12. Hishām b. 'Amr al-Zuhairī (129–132 H./A.D. 747–750)



Fig. 13 — R 10

Obv.:  
Within two squares:  
وحده

Margin: لا إله إلا الله

Rev.:  
محمد  
رسول  
الله  
Margin: بسم الله الأمير هشام  
بن عمرو بالموصل


<sup>102</sup> Ibn Khayyāt, *Ta'rikh*, p. 397; al-Balādhurī, *Ansāb*, Ms. 2, ff. 181b, 182b; al-Ṭabarī, *Ta'rikh*, Vol. 2, pp. 1901, 1906 f.; al-Azdī, *Ta'rikh*, p. 68.

	Linear border.	Area enclosed by linear border. Margin enclosed by beaded border.
<i>Specimen</i>	<i>Weight (gm.)</i>	<i>Diameter (mm.)</i>
R 10 *	2.70	20.00
C 2856	2.25	20.00
P 1630	3.05	19.00
P 1631	2.45	20.00
M 57		22.00
L 2639		
I/A 531	3.05	20.00
B 2267 <sup>103</sup>		22.00
ANS	2.90	19.50
ANS ex-Newell	2.48	21.00
ANS <sup>103</sup>	2.26	20.50
ANS <sup>103</sup>	2.25	21.00

M 57, which was the first to be published, as early as 1819 by Castiglioni, differs from the others in that the obverse marginal legend starts at the right and is arranged as follows: لا اله الا الله | لا اله الا الله | لا اله الا الله.

Until now this *fals* has been regarded as issued under the 'Abbāsids. This classification resulted from the fact that there is in Paris another coin with the same name and with the date 145 H./A.D. 762.<sup>104</sup> Furthermore, until the edition of al-Azdī's *History of Mosul*, there was no literary evidence for a governor of Mosul of the name Hishām b. 'Amr. It was, therefore, only natural to put the two coins together in spite of their different style, weight and legends.

Al-Azdī reports that the caliph Marwān appointed Hishām b. 'Amr al-Zuhairī as governor of the town as early as 128 H./A.D. 746,<sup>105</sup> but

<sup>103</sup> B 2267 and two ANS specimens differ slightly from the illustration above. Each side of the obverse square has three adjoining semicircles, thus: . The reverse margin reads *أمر الأمير هشام بن عمرو بالموصل*. The two ANS specimens, but not that of Berlin, have the obverse marginal legend arranged as on M 57. [MLB]

<sup>104</sup> P 1629.

<sup>105</sup> Al-Azdī, *Ta'rikh*, p. 76 and for the following years, pp. 107, 114, 117, 133.

this does not fit with the historical events sketched above, unless we suppose that Marwān appointed Hishām nominally before he had won back Mosul from the Khārijī Shaibān in the course of the year 129 H./A.D. 747.<sup>106</sup> Al-Balādhurī on the other hand states that Marwān, when he left Mosul after his victory over Shaibān, left behind as governor of the town Zuhair b. al-Aṣamm (not to be confused with Zuhair b. ‘Alqama) or ‘Uthmān b. ‘Abd Allāh b. Surāqa al-Azdī.<sup>107</sup> Since there is no other evidence in literature or numismatics for the existence of these two governors, we have to follow al-Azdī and to regard Hishām b. ‘Amr as governor of Mosul at least from the second half of the year 129 H./A.D. 747 until the end of the Umayyad caliphate.

Hishām b. ‘Amr apparently belonged to one of the well-established families of Mosul, since al-Azdī mentions a castle in the town which was built by Hishām’s brother Mu‘āwiya b. ‘Amr and was still known under his name.<sup>108</sup> When the caliph was defeated at the river Zāb near Mosul on the 2nd of Jumādā II 132 H./ 25 Jan. 750 A.D.—the date of the definite end of the Umayyad caliphate—all historians except al-Azdī report that Marwān fled directly toward Ḥarrān.<sup>109</sup> Al-Azdī, however, retains the tradition that the caliph first wanted to enter Mosul but was not let in by his own governor, Hishām b. ‘Amr, who had well understood the new political situation.<sup>110</sup> If we assume that the Hishām b. ‘Amr on the Abbasid *fals* of the year 145 is identical with him it certainly is due to this attitude toward Marwān that the ‘Abbāsids later on appointed him again governor of the town.

<sup>106</sup> See above, p. 193.

<sup>107</sup> Al-Balādhurī, *Ansāb*, Ms. 2, f. 185a.

<sup>108</sup> Al-Azdī, *Ta’rikh*, p. 76.

<sup>109</sup> Al-Balādhurī, *Ansāb*, Ms. 2, f. 194a; Ibn Khayyāṭ, *Ta’rikh*, p. 427; al-Ṭabarī, *Ta’rikh*, Vol. 3, p. 45.

<sup>110</sup> Al-Azdī, *Ta’rikh*, p. 133.

## THE GOVERNORS OF MOSUL (98–132 H./A.D. 716–750)

<i>Governor</i>		<i>Period</i>		<i>Evidence</i>	
Umayyad	Khārijī	H.	A.D.	lit.	num.
Unnamed		98	716–7	no	yes (over- struck)
Yahyā b. Yahyā al-Ghassānī		99–101	717–720	yes	yes
	Shaudhab	101–102	720	yes	no
Marwān b. Muḥammad		102–105	720–724	yes	no
?		105–108	724–727	no	no
al-Ḥurr b. Yūsuf		109–113	727–731–2	yes	yes
Yahyā b. al-Ḥurr		113–114	732	yes	yes
al-Walīd b. Talīd		114–119	732–737	yes	yes
	Bahlūl b. Bishr	119	737	yes	no
al-Walīd b. Talīd		119–121	737–739	yes	yes
al-Walīd b. Bukair =(?)Abū Quḥāfa		121–125	739–743	yes	yes(?)
Ziyād b. (Mu‘āwiya)		125–127(?)	743–744(?)	no	yes
	Sa‘īd b. Bahdal	126	744	yes	no
	Bisṭām	127	744–5	yes	no
al-Qaṭirān b. Akama		127–128	744–5–746	yes	yes
	al-Ḍaḥḥāk	128	746	yes	yes
	Shaibān	128–129	746–747	yes	no
	Zuhair b. ‘Alqama	?	?	no	yes
Hishām b. ‘Amr		129–132	747–750	yes	yes

## THE INITIAL LETTERS ON OTTOMAN COINS OF THE EIGHTEENTH CENTURY

(PLATES XXVI-XXVIII)

SAMUEL LACHMAN

One of the problems of Ottoman numismatics is the initial letters on coins of the eighteenth century. Beginning sometime later than 1106 H./A.D. 1695, coins of the Ottoman Empire with the exception of those of Tripoli, Tunis, and Algiers, show Arabic initial letters in various positions.

Lane-Poole<sup>1</sup> and Ghalib<sup>2</sup> state that these letters appeared during the reign of Aḥmad III. Pere<sup>3</sup> writes correctly that they were introduced in the reign of Muṣṭafā II. In Egypt the letters appeared in the reign of Aḥmad III. During all reigns of the period, coins without initial letters were also issued.

In Turkey proper the last coins with initial letters were struck in the first regnal year of Muṣṭafā III. In Egypt they continued to appear irregularly until the reign of Selīm III.

The sultans of this period are Muṣṭafā II, 1106–1115 H./A.D. 1695–1703; Aḥmad III, 1115–1143 H./A.D. 1703–30; Maḥmūd I, 1143–1168 H./A.D. 1730–54; ‘Osmān III, 1168–1171 H./A.D. 1754–7; Muṣṭafā III, 1171–1187 H./A.D. 1757–74; ‘Abd al-Ḥamīd I, 1187–1203 H./A.D. 1774–89; Selīm III, 1203–1222 H./A.D. 1789–1807.

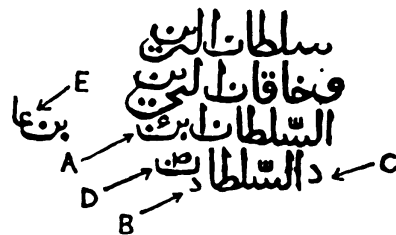


Fig. 1

<sup>1</sup> Stanley Lane-Poole, *The Coins of the Turks in the British Museum. Catalogue of Oriental Coins in the British Museum.* Vol. VIII (London, 1883), p. xxxviii.

<sup>2</sup> Ismail Ghalib. *Takvim-i Meskûkat-i Osmaniye*, (Istanbul 1307 H./A.D. 1890), p. 282.

<sup>3</sup> Nuri Pere, *Osmanlılarda Madeni Paralar*. (Istanbul, 1968), p. 185.

The initial letters have so far been observed in the following positions:<sup>4</sup>

A. Over *ibn* in third row of obverse (Fig. 1 and PLATE XXVI, 1).

On the coins of all sultans from Muṣṭafā II to Muṣṭafā III, when years appear in the same place. In Egypt this position continues to be used until the reign of Selīm III. The letters stand alone or in a cartouche (PLATE XXVI, 2). During the reign of Muṣṭafā III the letters occur in Egypt together with numerals (PLATE XXVI, 4).

B. Beneath *nun* of *al-sultān* in last row of obverse.

(Fig. 1 and PLATE XXVI, 1).

On coins of Muṣṭafā II and Aḥmad III.

C. Before *al-sultān* in last row of obverse.

(Fig. 1 and PLATE XXVI, 1).

On coins of Muṣṭafā II and Aḥmad III, and on Egyptian zeri mahbubs of Maḥmūd I. Usually found in combination with letters in other positions. However, an Egyptian zeri mahbub is known with only an initial letter in this position (PLATE XXVI, 5).

D. Over *nun* of *al-sultān* in last row of obverse.

(Fig. 1 and PLATE XXVI, 6).

On coins of Muṣṭafā II.

E. Joined to *nun* of *ibn* at l., in third row of obverse.

(Fig. 1 and PLATE XXVI, 7).

On an Egyptian zeri mahbub of Maḥmūd I.

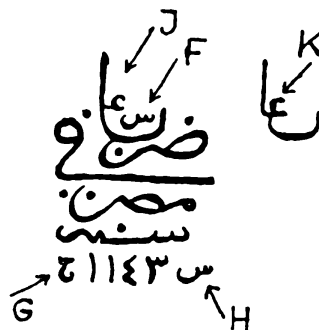


Fig. 2

<sup>4</sup> The drawings show all possible positions of the respective design; they do therefore not represent existing coins.

Over *bā* of *duribā* on reverse

(Fig. 2 and PLATE XXVI, 8).

From Aḥmad III to Muṣṭafā III, when years appear in the same position.

The letters stand alone or in a cartouche (PLATE XXVI, 9). It occurs

on an Egyptian para of ‘Abd al-Ḥamīd I. In Egypt during the reign of

Muṣṭafā III the letters exist together with numerals. (PLATE XXVI, 10).

*G.* Left of accession year on the reverse (Fig. 2 and PLATE XXVI, 11).

On paras and akçe of all reigns from Aḥmad III to Muṣṭafā III, and on Egyptian zincirli altins of Maḥmūd I.

*H.* Right of accession year on reverse.

(Fig. 2 and PLATE XXVII, 12)<sup>5</sup>

On zincirli altins of Egypt of Maḥmūd I.

*J.* Joined to *bā* of *duribā* (Fig. 2 and PLATE XXVII, 13).

On Egyptian silver coins of Ali Bey.

*K.* On top of left upright of *bā* of *duribā*.

(Fig. 2 and PLATE XXVII, 14).

On the Egyptian kuruş of Ali Bey.

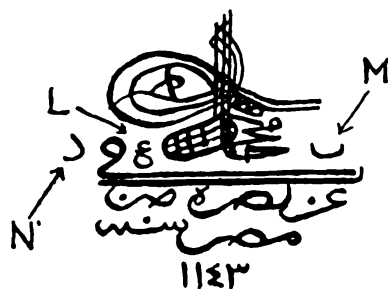


Fig. 3

*L.* Left of tughra on reverse (Fig. 3 and PLATE XXVII, 15).

On Egyptian zeri mahbubs of Maḥmūd I and ‘Osmān III.

*M.* Right of tughra on reverse (Fig. 3 and PLATE XXVII, 16).

On Egyptian zeri mahbubs of Maḥmūd I together with position *L*, and

on an Egyptian zeri mahbub of Muṣṭafā III. Egyptian yarim zeri

mahbubs exist which have in this position the word *nişfiye* (= half).

Some have above *nişfiye* an initial letter. These cases will be listed as

*n* for *nişfiye* alone, and *Mn* with initial letter.

<sup>5</sup> I wish to thank the British Museum for providing the photo of this position.



N. Left of *fi* on reverse (Fig. 3 and PLATE XXVII, 17).  
On Egyptian zeri mahbubs of Maḥmūd I.

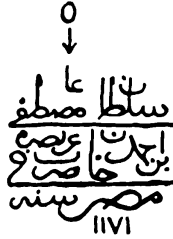


Fig. 4

O. Over *Muṣṭafā* in first line of reverse. (Fig. 4 and PLATE XXVII, 18)  
Egyptian gold coins of Ali Bey only.

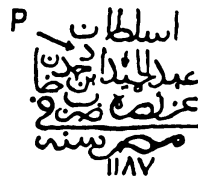


Fig. 5

P. Over *Aḥmad* in second row of reverse. (Fig. 5).  
Found on an Egyptian zeri mahbub of ‘Abd al-Ḥamīd I.

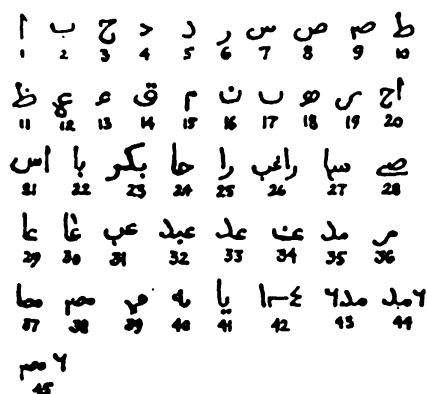
There may be further positions. Ghalib<sup>6</sup> indicates letters near the tughra on Egyptian zincirli altins of Maḥmūd I. In the absence of illustrations in his description, the exact position of these letters is not known.

In positions A and E the initial letters occur in cartouches. More than one form of the cartouche was used for the same letter on the same coins (PLATE XXVII, 19 and 20). The initials may be composed of two or three letters. On Egyptian zeri mahbubs of Maḥmūd I the full name *Rāghib* occurs in position A (PLATE XXVII, 21). The name *Bakīr* is found on coins of Egypt in the reign of ‘Abd al-Ḥamīd I (in position A). Initials may be met with on some coins in up to three positions. In Egypt, in the reign of Muṣṭafā III the letters are found together with

<sup>6</sup> Ghalib, *Takvimi*, Nos. 708–709.

numerals. It is pointed out that letters in cartouches are sometimes difficult to identify and may be mistaken for an ornament (see description below).

In order to list all known varieties, the initial letters have been numbered and these numbers are used in the list of coins for identification (Fig. 6).



**Fig. 6**

The first cartouche was used in the reign of Muṣṭafā II. In many of the early cartouches it can not be determined whether the cartouche contains initials or an ornament. The possibility that they are initials is stressed by their asymmetrical appearance. The following list describes a number of cartouches. The serial numbers will appear in the coin lists. This list is in no way complete as the cartouches are frequently not clear enough on the coins. More such cartouches exist. All these cartouches are in position A, and the mint is Qusṭantīniya (PLATE XXVI).

<i>Cartouche No.</i>	<i>Particulars</i>	<i>Coin</i>
	<i>Muṣṭafā II</i>	
101	Probably initial 13.	Kuruş.
	<i>Aḥmad III.</i>	
102	Initial?	Zolta
103	May be initial 33.	Zolta
104	Could be initial 15.	Zolta

105	May be <i>ain-m-d</i>	Zolta
106	Seems to be an ornament.	Zolta
107	May be initial 18.	Zolta
108	Perhaps <i>w-w</i> , the second reversed.	Zolta
109	May be <i>l-kh-l</i> joined, the second <i>l</i> reversed.	Zolta
110	May be initial 33.	Yarim zolta.

This presentation is preferred as very early impressions from these dies are required in order to decide definitely what these cartouches contain. No study of these cartouches has so far been published. The illustrations are about six times normal.

#### LIST OF ABBREVIATIONS.

*	The letter stands in a cartouche.
?	In the reference the description is not clear, or the letters are not clear on the coin.
+	There may be an additional letter in another position which is defaced or off-flan.
dr	The letter appears twice, the second reversed, in position E (PLATE XXVII, 22) and perhaps in some cartouches in position A as described above.

#### References:

BERN	Samuel Bernard, <i>Description de l'Égypte</i> . Vol. XVI <i>Mémoire sur les monnaies d'Égypte</i> . 2nd. ed. Paris, 1825.
BMC	Stanley Lane-Poole, <i>The Coins of the Turks in the British Museum. Catalogue of Oriental Coins in the British Museum</i> . Vol. VIII. London, 1883. <i>Addenda</i> , Vol. X. London, 1895.
CAIRO	Stanley Lane-Poole, <i>Catalogue of the Collection of Arabic Coins Preserved in the Khedivial Library at Cairo</i> . London, 1897.
COP	J. Østrup, <i>Catalogue des monnaies arabes et turques du cabinet Royal des Médailles du Musée National de Copenhague</i> . Copenhagen, 1938.
DAV	John S. Davenport, <i>The Dollars of Africa, Asia, and Oceania</i> . Galesburg, Illinois, 1969.

- FON Adolph Weyl, *Verzeichnis der Münzen und Denkmünzen der Erdteile Australien, Asien, Afrika. . . . der Jules Fonrobert'schen Sammlung*. Berlin, 1878.
- FRI Robert Friedberg, *Gold Coins of the World*. 2nd. ed. New York, 1965.
- GAL Ismail Ghalib. *Takvim-i Meskûkat-i Osmaniye*. Constantinople, 1307 H./A.D. 1890.
- H Collection Walter Hüsch, Dortmund.<sup>7</sup>
- LAC Author's collection.
- OLC Cüneyt Ölçer, *Sovyet Rusya Müzelerindeki (Moskova ve Leningrad). Nadir Osmanlı madeni paraları*. [Rare Ottoman Coins at Soviet Russian Museums (Moscow and Leningrad)]. Istanbul, 1972.
- PERE Nuri Pere, *Osmanlılarda Madeni Paralar*. Istanbul, 1968.
- SASS Collection Benjamin Sass, Jerusalem.<sup>7</sup>
- SCH Anton Schaendlinger, *Zur Münzprägung des Osmanischen Reiches. (Dissertation)*. Vienna, 1962.
- SCH II Anton Schaendlinger, *Osmanische Numismatik*. Braunschweig, 1973.
- ZOD Zodiac Stamp & Coin Auction, Tel Aviv. July 4, 1972.

In general, preference is given to a reference which illustrates the coin. All coins are illustrated by Davenport and Pere. References to the author's collection are followed by references to other sources, when available.

It should be understood that the particulars of the coins shown in the lists have been taken over as described in the various catalogues. The following is a short description of the coin names, mints, etc. mentioned in the lists.

*Gold*. The cedit eşrefi altın, the Zeri Istanbul, the zincirli altın, the tugrali altın, and the findik altın are all gold coins of ca. 3.50 gm. The zeri mahbub introduced in the reign of Ahmed III in 1128 H./A.D. 1716 weighs ca. 2.60 gm. Yeni tarzda means new type.

<sup>7</sup> I am grateful to Walter Hüsch and Benjamin Sass for permitting their coins to be included in this description.

*Silver.* From the time of Aḥmad III the kuruş has 40 paras and the para 3 akçes. The weight of the kuruş varied between c. 12.80 gm, and ca. 26.40 gm. Fractions of the kuruş are expressed by the number of paras. The zolta has 30 paras.

*Bronze.* The status of the large bronze coins is not clear. Ghalib<sup>8</sup> writes that they were not mentioned by the official historians of the Ottoman Empire. The denomination of the Egyptian bronze coins is not indicated anywhere; they may have had the value of an akçe.

*Numerals.* The names of many coins are formed from numerals, thus: Altmyş 60, yirmi 20, on 10, beş 5, dört 4, üç 3; çifte = double, birbuçuk  $1\frac{1}{2}$ , tek = single, yarım  $\frac{1}{2}$ , çeyrek  $\frac{1}{4}$ .

<i>Mints.</i>	Islāmbül	} Constantinople = Istanbul
	Qusṭanṭīniya	
	Ordūyu Hümayun	
	Mişr	
	Edirne	
	Izmīr	
	Gendje	War issue.
		Egypt
		Adrianople
		Smyrna
		Later Elizabethpol, now
		Kirovabad, U.S.S.R. (Azerbaijan).
	Tabrīz	Tabriz,
	Tiflis	Tbilisi, U.S.S.R. (Georgia)
	Gümüş-Khāne	Gûmûsane

### *Muṣṭafā II*

The initial letters began in the reign of Muṣṭafā II. Inasmuch as the kuruş and yarım kuruş from Qusṭanṭīniya exist in the style of the preceding reign without initial letters (PLATE XXVII, 23), it is obvious that the letters were not introduced at the beginning of the reign in 1106 H. The overstriking of European crown-size pieces<sup>9</sup> with the tughra design or as the contemporary kuruş began in 1108 H.<sup>10</sup> In the same year mints

<sup>8</sup> Ghalib, *Takvimi*, p. 257.

<sup>9</sup> Lane-Poole, *BMC*, Nos. 418–9.

<sup>10</sup> Ghalib, *Takvimi*, p. 254.

were opened at Edirne, Erzurum, and İzmir.<sup>11</sup> From İzmir the *kuruş* is known in the old style without initial letters (PLATE XXVIII, 24). The *cedid eşrefi altın Ordūyu Hümayun* which has an initial letter was struck in 1109 H.<sup>12</sup> It appears therefore that the letters were introduced in 1108 or 1109 H. The number of initials on record for this reign are: Qusṭanṭīniya 6 and one cartouche; Ordūyu Hümayun 1; Edirne 2; İzmir 1, for a total of ten.

<i>Denomination</i>	<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>Qusṭanṭīniya</i>			
Cedid eşrefi altın	B	7	PERE 484
Kuruş	B	39	SASS
	A, B	13, 5	LAC
		13, 17	SASS
		101, 7	LAC
	A, B, C	13, 5, 5	PERE 492
		13, 17, 5	LAC; DAV 317 (PLATE XXVI, 1)
	A, C	15, 5	LAC
Yarım kuruş	D	9	SASS
	A, B	13, 5	LAC
	A, C	13, 5	PERE 493
		15, 5	LAC
	D	9	LAC (PLATE XXVI, 6)
AE    38 mm.	A, B	13, 5	PERE 495
		13, 5	PERE 496
	A	15	LAC
<i>Ordūyu Hümayun</i>			
Cedid eşrefi altın	B	15	PERE 489

<sup>11</sup> Joseph von Hammer-Purgstall. *Die Geschichte des Osmanischen Reiches*. (Pest, 1827–1835), Vol. 6, p. 628.

<sup>12</sup> Pere, *Osmanlılarda*, p. 185.

<i>Denomination</i>	<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>Edirne</i>			
Cedid eşrefi altın	B	13	PERE 481
Kuruş	A	34	LAC; PERE 490
Yarım kuruş	A	34	LAC
AE	A	34	LAC
<i>Izmîr</i>			
Kuruş	B	35	LAC

*Ahmad III*

The number of letters of this reign are as follows: Islâmbûl and Quşantîniya 23 and 9 cartouches; Gendje 1; Mişr 6; Tabrîz 1; Tiflis 1; for a total of 32.

<i>Denomination</i>	<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>Islâmbûl</i>			
Zeri Istanbul	F*	3	LAC
			(PLATE XXVI, 9)
		8	BMC 473
		14	PERE 499
		16	LAC
		19	GAL 633
Yarım zeri Istanbul	F*	35	LAC; BMC 472
		35	BMC 474
		36	PERE 500
Zeri mahbub <sup>13</sup>	A*	35	LAC; PERE 501
Yarım zeri mahbub	A*	7	GAL 636
		8	BMC 476

<sup>13</sup> The tughra of the Zeri Mahbub BMC No. 475 with letter 12 dated 1123 is that of Maḥmūd I and not of Aḥmed III. The accession year is damaged. It should read 1143. Similar damages were seen by the author.

<i>Denomination</i>	<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>İslāmbūl</i> (continued).			
Para	G	5	PERE 522
		13	LAC
		14	LAC; BMC 479
		15	LAC; GAL 638
		19	LAC; BMC 478
<i>Qusṭanṣīniya</i>			
Beşlik eşrefi altın (ornate border)	A*, B	19, 2	GAL 606
	B ?	40	GAL 607
(dot border)	B	18	PERE 504
Dörtlik eşrefi altın	B	40	PERE 505
Çifte eşrefi altın	B ?	13	GAL 608
	B, C	18, 13	PERE 506
Eşrefi altın 25 mm	A*	7	GAL 610
24 mm	B	9	PERE 508
21 mm	B ?	13	GAL 611
32 mm	B	18	PERE 507
22 mm	A*, B	4, 36	GAL 612
Kuruş	A*	7	LAC; PERE 516
		35	LAC; DAV 321
	B	3	BMC 441
Yirmilik	A*	35	LAC; BMC 447
	B	3	BMC 448
	A*, B	36, 3	GAL 715
		3, 36	PERE 517
Onluk	A	3	BMC 452
		7	BMC 453
		8	BMC 454
		19	BMC 451
	A*	19	PERE 518
		35	LAC
	A*, B	3, 36	LAC; GAL 617
		36, 3	LAC
		14, 6	GAL 618



<i>Denomination</i>	<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>Qusṭanḫinīya</i> (continued).			
Beşlik	A*	8	BMC 455
		35	PERE 519
Zolta	B	3	GAL 619
		15	GAL 620
	A, B	13, 17	LAC
	A*, B	102, 5	LAC
		103, 40	LAC
		106, 10	LAC
		107, 33	LAC
		108, 13	LAC
		109, 27	LAC
		35, 18 ?	LAC
		?, 9	LAC
		?, 18	PERE 520
	A*, B, C	104, 18, 13	LAC
		105, 18, 13	LAC
Yarım zolta	B	33	BMC 450
		10	OLC 80 <sup>14</sup>
	A*, B	103, 9	LAC
		?, 13	LAC
	A*, B, C	110, 18, 13	LAC; PERE 521
Zolta (different type)	F*	12	GAL 623
Para (obv. tughra)	G	2	BMC 460
		3	LAC; GAL 625
		5	LAC; BMC 457
		6	LAC
		7	LAC; BMC 458
		14	BMC 462
		36	LAC
Para (obv. inscription)		6	BMC 467 <sup>15</sup>
Akçe (obv. tughra)	G	2	BMC 464
		4	GAL 627

<sup>14</sup> Listed as a zolta, but no doubt a yarım zolta.

<sup>15</sup> Listed in BMC as akçe, GAL 629–631 are listed as paras.

<i>Denomination</i>	<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>Qus̄anŋinīya</i> (continued).			
		5	BMC 463
		25	BMC 465
Akçe (obv. inscription)		7	BMC 470
AE 37 mm.	B ?, C	?, 13	PERE 536
30 mm.	B	18	LAC
Gendje			
Onluk	F*	15	BMC 483
<i>Miřr</i>			
Çifte eşrefi altın	A	14	GAL 650
Eşrefi altın	A	14	GAL 651
		15	GAL 652
		18	CAIRO 1700
		28	BMC 487
Çifte cedid zincirli altın	F	36dr	BERN 1
Cedid zincirli altın	F*	3dr	BMC 489a
	F	36dr	LAC; PERE 510 (PLATE XXVII, 22)
Yarım zincirli altın	F*	3dr	GAL 654
	F	36dr	BERN 6
<i>Tabrīz</i>			
Cedid zincirli altın	F*	19	PERE 513
Onluk (obv. inscription)	A*	19	BMC 485
Beşlik (obv. inscription)	A*	19	BMC 486
Onluk (obv. tughra)	F*	19	PERE 530
Beşlik (obv. tughra)	F*	19	PERE 531
Yarım beşlik (obv. tughra)	F*	19	GAL 643
<i>Tiflīs</i>			
Çifte eşrefi altın	A*	3	GAL 644
Cedid eşrefi altın	A*	3	PERE 514
Onluk	A*	3	LAC; PERE 532
Beşlik	A*	3	PERE 533
Yarım beşlik	A*	3	PERE 534

*Maḥmūd I*

The tughra of this sultan exists in two styles which differ in the number of squares in the left lower part of the tughra. Both are inscribed *Khān Maḥmūd b. Muṣṭafā al-muẓaffar daima*. Tughra (a) (PLATE XXVIII, 25) is the earlier one. This can be established by the weight of the kuruş. The kuruş of Aḥmad III has a weight of  $8\frac{1}{4}$  dirhams ca. 26.40 gm. The early kuruş of Maḥmūd I has the same weight. This weight was later reduced to  $7\frac{1}{2}$  dirhams—ca. 24.0 gm. Tughra (a) exists only on the heavier kuruş. In the list the tughra will be designated (a) or (b) (PLATE XXVIII, 26) if possible, but it should be understood that there are cases of doubt (worn coins or illustrations not clear). A number of coins exist with both styles of the tughra with the same initial letter. In addition several letters have been met with on coins with different ornamentations. A number of silver coins of Qusṭantīniya have the accession year in a cartouche (PLATE XXVIII, 27), abbreviated *cart.* in the list. The recorded letters of this sultan are: Qusṭantīniya and Islāmbūl 11; Gümüşh-Khāne 2; Mişr 17, for a total of 30.

<i>Denomination</i>	<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>Islāmbūl</i>			
Beşlik cedit Istanbul altın			
Border of flowers	(b) F*	13	PERE 543
Ornamental border	(a)	15	GAL 663
		15	PERE 544
		13	BMC 502
Üçlik cedit Istanbul altın			
Ornamental border		13	BMC 502 d
	(b)	31	PERE 545
Plain border	(b)	31	PERE 546
Çifte cedit Istanbul altın			
Ornamental border	(a)	15	PERE 547
Three circles	(b)	15	PERE 548
Bibuçukluk cedit Istanbul altın			
28 mm rope circle & circle of buds	(b)	8	PERE 551
31½ mm. broad ornamental border	(b)	13	PERE 549

<i>Denomination</i>	<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>İslāmbūl</i> (continued).			
29 mm. three circles (b)		15	PERE 550
29 mm. ornamental border		31	GAL 667
24 mm. plain border		15	BMC 507
Yeni tarzda cedid İstanbul altınıs:			
Bibuçukluk altın	F*	8	GAL 669
	(a)	15	PERE 552
Tek altın	(b)	8	PERE 553
Yarım altın	(a)	8	PERE 554
		15	BMC 510
Zeri mahbub	A	8	GAL 672
	(a)	12	LAC
	(b)	12	LAC; PERE 555
	(a) <sup>16</sup>	15	LAC
			(PLATE XXVII, 19)
	(b) <sup>17</sup>	15	LAC; PERE 556
			(PLATE XXVII, 20)
Yarım zeri mahbub	A	3	GAL 677
	(b)	12	PERE 557
	(b) <sup>17</sup>	15	LAC
Beşlik	(b)	12	PERE 577
<i>Qusṣanḫīniya</i>			
Kuruş <sup>18</sup>	A*	8	GAL 675
	(a)	15	PERE 573
	(b)	14	PERE 572
	(b)	29	LAC; DAV 324
cart. (b)		29	LAC
		31	BMC 518

<sup>16</sup> Oval cartouche.

<sup>17</sup> Trapezoidal cartouche.

<sup>18</sup> The zolta BMC 516 is a clipped kuruş. No zolta was struck in the reign of Maḥmūd I. Hammer-Purgstall, *Geschichte*, Vol. 8, p. 214.

<i>Denomination</i>		<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>Quslanîniya</i> (continued).				
Yirmilik		A*	8	COP 2617
	(a)		15	LAC (PLATE XXVI, 2 and PLATE XXVIII, 25)
		A	8	GAL 679
			12	GAL 681
	(b)		14	LAC; GAL 682
	(a)		29	PERE 574
	(b)		29	LAC
	cart. (b)		29	LAC
			31	GAL 684
	(a)	A*	15	PERE 575
Onluk	(b)		31	LAC; COP 2618
	(b)	A	14	LAC
	cart. (b)		14	LAC
	cart. (b)		29	LAC
	(b)		31	LAC; GAL 687
	(a)	A*	15	LAC
Beşlik		A	8	GAL 690
	(a)		12	PERE 576
			14	BMC 529
	(b)		29	LAC
			31	BMC 528
	(b)	G	8	LAC; GAL 693
Para			12	LAC; GAL 691
	(b)		14	LAC; GAL 694
	(a)		15	PERE 578
	(a)		16	LAC; GAL 695
	(b)		29	LAC; GAL 692
	(b)		30	LAC
	(b)		31	LAC; GAL 697
	(a)	G	3	LAC
Akçe	(a)		12	LAC

<i>Denomination</i>	<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>Qusṭanṭīniya</i> (continued).			
	(b)	14	LAC; PERE 579
		16	LAC; GAL 701
		25	BMC 534
		29	LAC
		31	GAL 700
AE cart. (b)	A*	29	PERE 583
<i>Gümüşh-Khāne</i>			
Kuruş	(a)	A*	10 PERE 568
	(a)	A	12 LAC
Yirmilik	(a)	A*	10 PERE 569
	(a)	A	12 H
<i>Mişr</i>			
Çifte tugralı altın	A, L	12, 41	BMC 541
Zincirli altın	G & ?	16, 3	GAL 708
	(near tughra)		
	near tughra?	3	GAL 709
25 mm.	H	7	BMC 551
			(PLATE XXVII, 12)
19 mm.	H	7	BMC 552
	G	16	LAC
			(PLATE XXVI, 11)
Yarım zincirli altın	G	16	BMC 553
	H	7	BERN 7
Çifte zeri mahbub	A, N	25, 5	FON 5044
Zeri mahbub	A	8	BMC 548
	(b)	12	LAC; PERE 562
	(b)	25	LAC
	(b)	26	LAC; PERE 561
			(PLATE XXVII, 21)
	(a)	C	11 LAC

<i>Denomination</i>	<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>Miṣr</i> (continued).			
	(b)	E	29 (PLATE XXVI, 5) LAC
		L	4 (PLATE XXVI, 7) BMC 545
		15	BMC 546
	(b)		24 LAC
	(b)	A*, C	12, 19 LAC
		A, L	25, 5 BMC 547
	(b)	A, N	25, 5 LAC
			(PLATE XXVII, 17)
	(b)		25, 12 LAC
	(b)		25, 16 SCH II, Pl. 4, No. 51 <sup>19</sup>
	(b)	L, N	15, 5 PERE 563
	(b)	A*, C, L	12, 19, 41 LAC
Yarım zeri mahbub		A	12 BMC 550
	(b)		25 PERE 564
		L, n	15, ? GAL 714
		L, Mn	15, 7 ZOD 730
		A, L, n	20, 41 ? GAL 713
Para	(a)	F	5 LAC
	(b)		5 LAC
	(a)		7 LAC; BMC 555
	(a)		12 LAC
			(PLATE XXVI, 8)
	(b)		12 LAC
			15 BMC 557
			32 LAC; BMC 559
Manghir (AE)	(b)	F	5 LAC

<sup>19</sup> Anton Schaendlinger, *Osmanische Numismatik*. (Braunschweig, 1973), pp. 69, 115, plate 4, No. 51, described as a Zeri Mahbub of Muṣṭafā II dated 1113. The tughra of this coin is that of Maḥmūd I and the accession year is 1143. See note 13 above.

*‘Othmān III*

There are the following letters during this reign:

Qusṭanṭīniya and Islāmbūl, 5; Miṣr 4, for a total of 9.

<i>Denomination</i>	<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>Islāmbūl</i>			
Beş findik altın			
Ornamental border	F*	4	PERE 588
Floral border		4	PERE 589
Üç findik altın			
Ornamental border	F*	4	PERE 590
Floral border		4	GAL 731
Blank space		4	PERE 591
Birbuçuk findik altın			
Ornamental border	F*	4	PERE 592
Blank space		4	GAL 734
Border of buds, ornaments in the field		4	PERE 593
Zeri mahbub	A	2	GAL 736
		3	PERE 594
Yarım zeri mahbub	A	3	PERE 595
		22	BMC 251
<i>Qusṭanṭīniyya</i>			
Kuruş	A	22	DAV 325
Yirmilik	A	3	PERE 599
Onluk	A	2	COP 2633
		3	LAC; BMC 581
		8	LAC; GAL 739
		22	PERE 600
Beşlik	A	2	PERE 601
		3	GAL 740
Para	G	3	LAC; GAL 741
		8	LAC; BMC 583
		22	LAC; BMC 584



<i>Denomination</i>	<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>Qusṭanṭīniya</i> (continued)			
Akçe	G	2	PERE 603
		3	GAL 743
		22	GAL 744
<i>Mişr</i>			
Çifte zeri mahbub	A, L	8, 3	BMC 585
Zeri mahbub	A	7	LAC
	A, L	8, 12	LAC; PERE 596 (PLATE XXVII, 15)
(yeni tarzda)		8, 12	PERE 597
Yarım zeri mahbub	A	7	BMC 586
		8	BMC 587
Para	F	7	GAL 747
		8	LAC
		12	LAC

### *Muṣṭafā III*

The tuhra of this sultan was changed from (a) *Muṣṭafā khan b. Aḥmad al-muzaḥḥar daima* (PLATE XXVIII, 28), to (b) *Muṣṭafā b. Aḥmad al-muzaḥḥar daima* (PLATE XXVIII, 29). The change was not carried out for all denominations in the same year. It has been said that the change was effected between 1173 and 1175 H.<sup>20</sup> However, the Egyptian Zeri Mahbub with letter 44 was changed in 1176 H. Both styles of the tughra exist (PLATE XXVI, 3 and 4) in this year. The coins of Qusṭanṭīniya with initial letter were struck in 1171 H. and have tughra (a). In respect to the Egyptian coins the style is indicated as far as possible. The coins of Ali Bey have all the tughra in style (b).

The following initial letters are recorded for this reign:

Qusṭanṭīniya 1; Mişr 11; Mişr, Ali Bey 1, for a total of 13.

<sup>20</sup> Pere, *Osmanlılarda*, p. 213.

<i>Denomination</i>	<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>Qusṭanṭīniya</i>			
Kuruş	A	8	SCH 544 b
Onluk <sup>21</sup>	A	8	PERE 642
Beşlik	A	8	SCH II, Pl. 10 No. 106.
Para	G	8	GAL 798
Akçe	G	8 ?	SCH II, Pl. 10 No. 108.
<i>Mişr</i>			
Çifte zeri mahbub	A	38	BMC 637
(b)		45	PERE 620
Zeri mahbub	A	7	PERE 621
(a)		38	LAC
(a)		42	LAC
(a)		44	LAC
(b)		44	(PLATE XXVI, 3) LAC; PERE 622
(b)		45	(PLATE XXVI, 4) LAC
(a)	A, M	42, 17	LAC
(a)			(PLATE XXVII, 16)
Yarım zeri mahbub (a)	A	38	LAC; PERE 623
Çeyrek zeri mahbub (b)	A	44	PERE 624
Para (a)	F	1	LAC
(a)		7	LAC
		24	LAC
		37	GAL 810
(a)		38	LAC
(b)		43	LAC
			(PLATE XXVI, 10)

<sup>21</sup> Schaendlinger, *Osmanische NUM*, p. 121, lists also altmışlık and yirmilik which may also bear the initial letter 8.

<i>Denomination</i>	<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>Mişr—Ali Bey</i>			
Zeri mahbub 1171, year 83	O	29	LAC; PERE 626 (PLATE XXVII, 18)
year 8?		29	PERE 627
Yarım zeri mahbub, 1171, year 83	O	29	PERE 628
Kuruş 1183	J	29	LAC; BERN 16 (PLATE XXVII, 13)
	K	29	LAC (PLATE XXVII, 14)
Kuruş 1183, year 85	J	29	BMC 647 (DAV 13).
Yirmilik 1183	K	29	BERN 18
Yirmilik 1183, year 85	J	29	BMC 648
Onluk 1183	J	29	SCH 591 c
Beşlik 1183	J	29	LAC; GAL 808
Para 1171 (no further year)	J	29	LAC; PERE 644

*‘Abd al-Ḥamīd I.*

Three letters were in use during this reign:

<i>Denomination</i>	<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>Mişr.</i>			
Zeri mahbub	A	23	PERE 664
		32	GAL 870 <sup>22</sup>
Yarım zeri mahbub	A	32	LAC; PERE 665
Yeni tarzda mahbub	P	5	PERE 666
Para	F	5	SASS

<sup>22</sup> Ghalib lists this coin as *abd* 15.

*Selīm III*

Two letters are known from this reign:

<i>Denomination</i>	<i>Position</i>	<i>Letters</i>	<i>Reference</i>
<i>Mişr</i>			
Çifte zeri mahbub	A	21	GAL 913
Zeri mahbub	A	2	LAC; FRI 1 <sup>23</sup> (PLATE XXVIII, 31)
		21	PERE 702
Yarım zeri mahbub	A	2	FRI 2
Çeyrek zeri mahbub	A	2	FRI 3

The problem is to identify these initial letters. Marsden<sup>24</sup> says that they are probably mint marks. Lane-Poole<sup>25</sup> states that it may be assumed that they represent some official's name. He says further that if we possessed a list of superintendents of the mint, we should find the explanation of the initials on the coins. Pere<sup>26</sup> mentions these initials but does not give any explanation for them.

On the working of a mint in the Ottoman Empire, there is the description by Evliya Çelebi which refers to the 17th century.<sup>27</sup> Bernard<sup>28</sup> gives a detailed description of the Egyptian mint at Cairo at the time of the French occupation in 1799. He writes that the *Shaikh al-balad*,<sup>29</sup> or governors of the country, and the pashas or beys who were responsible

<sup>23</sup> Letter 2 (b) stands for Bonaparte and was applied to gold coins struck in Egypt under French occupation (1798–1801).

<sup>24</sup> William Marsden, *Numismata Orientalia* Pl. 1 (London, 1823), p. 416.

<sup>25</sup> Lane-Poole, *BMC*, p. xl.

<sup>26</sup> Pere, *Osmanlılarda*, p. 185.

<sup>27</sup> Evliya Çelebi. *Seyahatnamesi*.—For a description and discussion of the mint arrangements, see Anton Schaendlinger, *Zur Münzprägung des Osmanischen Reiches (Dissertation)* (Vienna, 1962), pp. 80 ff.

<sup>28</sup> Samuel Bernard, *Description de l'Égypte*. Vol. 16. *Mémoire sur les monnaies d'Égypte* (Paris, 1825), pp. 443 ff.

<sup>29</sup> On the *Sheikh al-balad* see Stanley Lane-Poole, *A History of Egypt in the Middle Ages*. 4th Ed. (London, 1968), p. 355.

for the mint, used to have their initials engraved on the coins.<sup>30</sup> However, he does not list any names relative to such initials (with the exception of Ali Bey, see below), or furnishes any other detailed particulars in this respect for the Egyptian mint. He states further that nobody had until his time explained these letters on Turkish coins, but if one knows the names of the *shaikh al-balad*, pashas or beys, they stand for, one could date the coins properly.<sup>31</sup>

Codrington<sup>32</sup> mentioned single letters on Islamic coins as denoting the quality of the metal.

Although a definite answer to the question of what these letters stand for in each particular case can only be given when a pertinent manuscript containing detailed particulars turns up, it may be advisable to consider the many possibilities which offer themselves: dating, security measure, governors (pashas) etc., mints or officinae, mint superintendents, other mint officials.

There is probably no doubt that these letters cannot represent a form of dating. The number of letters found on any one of the more common denominations of Aḥmed III or Maḥmūd I is insufficient to cover the period of their reign. Hammer<sup>33</sup> states that zoltas were minted during the reign of Aḥmad III when a daughter was born to him, but this would not form a kind of dating.

The possibility of a security measure is rather doubtful. Forgeries also have initial letters (PLATE XXVIII, 30).

A list of grand vizirs appears in Hammer's description.<sup>34</sup> These names have no connection with the letters.

With regard to Egypt, the letter 29 stands for Ali Bey, the rebel at the time of Muṣṭafā III. According to Bernard,<sup>35</sup> letter 21 stands for Ismā'il Bey at the time of Selīm III. Letter 2 is the initial of Bonaparte (Selīm III) (PLATE XXVIII, 31). The historians point out that Ali Bey struck coins in his own name.<sup>36</sup> If Bernard is right that the *shaikh al-balad* used

<sup>30</sup> Bernard, *Description*, pp. 347 ff.

<sup>31</sup> Bernard, *Description*, p. 352.

<sup>32</sup> Oliver Codrington, *A Manuel of Muselman Numismatics* (London, 1904), p. 9.

<sup>33</sup> Hammer-Purgstall, *Geschichte* Vol. 8, p. 214.

<sup>34</sup> Hammer-Purgstall, *Geschichte*, Vol. 7, p. 623 and Vol. 8, p. 587.

<sup>35</sup> Bernard, *Description*, p. 351.

<sup>36</sup> Hammer-Purgstall, *Geschichte*, Vol. 8, p. 299.

to have his initials engraved on coins, then the statement of the historians may refer to the *kuruş* and the *yirmilik* which bear the year 1183, when he declared himself independent, and not to the initial. There are some Egyptian *zeri mahbubs* in the reign of Maḥmūd I which may bear the initials of the *shaikh al-balad* or the pasha, but in general there is no uniformity among gold, silver, and bronze coins.

After the introduction of the *kuruş* in the reign of Sūlaymān II, the number of mints in the Ottoman Empire was limited. It would therefore be possible that the dies were cut at Istanbul with the inscription *ḍuriba fī Qusṭanṭīniya* but the coins were struck at several mints outside the capital. No information on this is available. It appears unlikely in view of the large number of letters known from Egypt, where a maximum of two or three mints would have been possible. The question of *officinae* seems not to have existed in the Ottoman Empire. The Imperial mint was in the first court of the seraglio, to which it was transferred some time prior to 1695.<sup>37</sup> The irregular sequence of the letters excludes their denoting a number of *officinae*.

The initials cannot stand for the superintendent of the mint. Not all letters occur on all denominations of a certain period. Some are found on gold coins only, while others appear only on silver coins. In addition, the superintendent of the Imperial mint at Istanbul was frequently a vizir.<sup>38</sup> The appearance of the name of a vizir on a coin, even in the form of an initial, would have been impossible in the Ottoman Empire.

The foregoing particulars seem to indicate that the initials stand for officials directly responsible for the production of the coins, possibly the engraver, die cutter, or officer responsible for the alloy. In a case of two or three initials, both may be indicated and the third letter may confirm the quality of the alloy as mentioned by Codrington. The mint master is less likely, as gold and silver coins frequently have different initial letters.

If the letters stand for the engraver, it should be noted that the recurrence of the same letters in different reigns conforms to the habits of the Ottoman Empire. In the guide book of the seals collection of the

<sup>37</sup> N. M. Penzer, *The Harem*. 2nd. ed. (London, 1965), p. 87.

<sup>38</sup> Anton Schaendlinger, *Dissertation*, p. 91.

Topkapi Saray Müzezi<sup>39</sup> it is said that the name of a famous engraver was, after his death, adopted by another famous engraver.

It may be that signs having a similar significance were used in the reigns of Sülaymân II 1099–1102 H./A.D. 1687–91 and Aḥmad II 1102–1106 H./A.D. 1691–5).

c r l p  
a b c d

Fig. 7

Sülaymân II	Kuruş	Position C	Sign a.	PERE 468
			b.	DAV
Aḥmad II	Kuruş	Position B	Sign c.	PERE 476
			d.	DAV 316
	Yarım kuruş	Position B	Sign c.	PERE 477
			d.	LAC (PLATE XXVIII, 32)

Lane-Poole listed 54 initial letters. In the present description 102 initial letters and 10 cartouches are mentioned. There are 315 coins in the list. The whole represents a summary of what could be gathered from available sources.

<sup>39</sup> *Guide Book of the Seals Section of Topkapi Saray Museum.* (Istanbul, 1959), p. 50.

## TEMPLETON REID, FIRST OF THE PIONEER COINERS

(PLATE XXIX)

DEXTER C. SEYMOUR

In the summer of 1830 in Milledgeville, Georgia, Templeton Reid struck \$1,500 worth of coins from metal newly mined in the then young Georgia gold rush<sup>1</sup> and so became the first to test the right of citizens under the Constitution to engage in a practice theretofore held sacred by the governing authorities. Reid's enterprise was to reward him with a brief moment of national fame and, at the same time, a considerable degree of personal humiliation, but it assured him a secure niche in the annals of American numismatic history.

It is now possible to provide a fairly detailed account of Reid's life and business activities based on a study of the pertinent tax digests, records of land transactions, various governmental documents both national and local, United States Census data and, primarily, court records, newspaper articles, cards, advertisements and legal notices. Following a review of previous biographical and numismatic literature, this biography treats Reid's life chronologically, starting with the years before 1830, detailing the events of 1830 and continuing with the years after 1830 to his death in 1851. In order to have a full understanding of Templeton's personality it has been necessary, for reasons which will be apparent later, to study in some detail other members of his family, in particular his brother Elisha in close association with whom he spent a great deal of his life.

### REVIEW OF THE LITERATURE

The first writer to be interested in Templeton Reid from a numismatic point of view was Edgar Adams who published a paper in 1911 on the subject of California private gold coinage in which he questioned

<sup>1</sup> *Georgia Journal*, July 24, 1830, p. 2; *Southern Recorder* (Milledgeville), July 24, 1830, p. 3.



whether Reid had gone to California to make the two coins, stamped TEMPLETON REID - CALIFORNIA GOLD received in 1849 at the U.S. Mint in Philadelphia.<sup>2</sup> The following year Adams published a second paper in which he erroneously stated that Reid's minting operations in Georgia in 1830 coined over \$200,000 in gold—more than the output of the U.S. Mint for that year.<sup>3</sup> Adams suggested looking through early files of Georgia newspapers for further information on Reid and, in 1934, he published a third paper, in which he showed that Reid's mint was in Gainesville, Georgia and that his output was estimated to be \$700 per day with profits placed at about 7%.<sup>4</sup> However, Adams did not pursue the subject further and apparently failed to recognize the scope and true historical import of Reid's activities.

In 1935 Fletcher Green published a study of the history of Georgia's gold mining industry and in it attributed two mints to Reid, one in Gainesville and one in Augusta.<sup>5</sup> The error arose from his misinterpretation of an article in *Niles' Weekly Register*<sup>6</sup> and was perpetuated by later writers.<sup>7</sup> E. M. Coulter evidently used Green as a source for his study of Auraria, reading those of Green's references which were readily available to him since he did not make the mistake of ascribing two mints to Reid.<sup>8</sup> Green's work was fairly well documented and, together with that of Cutten, which also contains many original references, albeit sometimes incorrectly specified, has served as the basis for the work of more recent writers.

<sup>2</sup> Edgar H. Adams, "Private Gold Coinage. Templeton Reid," *AJN* 1911, p. 183; W. C. Moore, "A Review of the Money Conditions from the Discovery of Gold in California in 1849 to 1870," *Num* 1911, p. 165 also briefly mentions Reid's alleged California issue. The evidence for these issues is assessed at the end of this paper.

<sup>3</sup> Edgar H. Adams, "Live American Numismatic Items," *Num* 1912, p. 184.

<sup>4</sup> Edgar H. Adams, "The Coinage of Templeton Reid of Georgia and California," *Coin Collector's Journal* 1934, p. 64.

<sup>5</sup> Fletcher M. Green, "Georgia's Forgotten Industry: Gold Mining," *Georgia Historical Quarterly* 19 (1935), pp. 93, 221.

<sup>6</sup> *Niles' Weekly Register* (Philadelphia), Oct. 9, 1830, p. 106, quoting from the *New York American*.

<sup>7</sup> George Barton Cutten, *The Silversmiths of Georgia* (Savannah, 1958), pp. 9, 64; J. Sherrod Taylor, "Georgia Gold," *WNJ* 1968, p. 509.

<sup>8</sup> E. Merton Coulter, *Auraria, The Story of a Georgia Gold-mining Town* (Athens, Ga., 1956), pp. 23-24, 121-122.

In his history of Greene County, Thaddeus Rice was the first to take a biographical interest in Templeton Reid.<sup>9</sup> His work unfortunately lacks the necessary documentation and contains many inaccuracies.<sup>10</sup> In spite of these difficulties, it serves as a starting point for additional research and has provided useful leads in the present study. Regrettably, Rice's book has been used without caution by more recent writers and many of its errors have therefore crept into the numismatic literature on Reid.<sup>11</sup>

<sup>9</sup> Thaddeus Brockett Rice, *History of Greene County, Georgia*, ed. Carolyn White Williams. Macon, 1961.

<sup>10</sup> For example, Rice, *History*, p. 93, where Reid is stated to have been authorized by the U. S. Treasury Department to coin gold money in Dahlonega. Had Reid been so authorized, he would have used the "permit" in his defense (see p. 236). In addition, the town of Dahlonega was not in existence in 1830, the year of Reid's operations. Again, on p. 157, Rice states that "he held a duly authorized permit from the Congress of the United States" (note that this time the alleged permit was issued by Congress). Note also Rice's statement on p. 156 that "up to the year 1830, the only gold money in circulation in the United States, was of English, Spanish and other, foreign coinage, except, the private coinage of A. and B. Bechtle of North Carolina whom the U. S. Treasury had granted a permit to coin gold, provided, that 27 grains of 21 carat gold must be in each dollar, and this information together with the name of the coiner, must be stamped upon each coin, . . . ." Christopher Bechtler began to strike coins in 1831, but without benefit of a Treasury Dept. permit (see p. 245). At p. 154, Rice suggests that Reid's father was Samuel, but in response to an inquiry (Lewin Dwinell McPherson, "The Brotherhood of Man," typescript copyrighted Washington, D.C./Chicago, Ill./Bremen, Ga., 1939, p. 3; compare also McPherson's reference 19b, p. 37) he stated that the father was Alexander Reid. In fact, there is evidence which indicates that his father was Joseph Reid of Greene County, Ga.

<sup>11</sup> Jackson Bennett, "Templeton Reid, Assayer of Gold," *Num* 1965, p. 1831. See also his lecture, "Templeton Reid, Assayer of Gold," at the American Numismatic Association Educational Forum, reported in *CW* Sept. 8, 1965, p. 24; and "Some Facts About Templeton Reid," *Coins* Aug. 1966, pp. 58, 60 for additional articles by Bennett based on the original. Note that no records exist to support Bennett's contention that Reid's Gainesville mint was "in a blacksmith shop one block west of the square;" the story apparently originated in an article by W. A. Roper writing as "Cousin Arthur" in the *Gainesville (Ga.) Times* of Aug. 4, 1959. For a recent publication based on Bennett's work, see Dwight A. Safford, "Templeton Reid," *CN* 1971, p. 88. Also Lewis D. Richardson, paper presented to the Hall. Co., Ga. Historical Society, Jan. 16, 1968, and published in somewhat condensed form as "Templeton Reid, Early Coin-Maker of Georgia," *Georgia Magazine* 19 (May 1971), pp. 22-25.

## YEARS PRIOR TO 1830

Nineteen years were to elapse before Templeton would create for himself his niche in American monetary history but in 1811 he began to lay the foundations for his career as a metal worker with an advertisement from Putnam County that, with Thomas Reid, he was prepared to "make complete COTTON GINS, for the coming season, at Three Dollars per saw, with valuable improvements, steel'd, hardened breasting,"<sup>12</sup> and, in 1813, as a watchmaker with an announcement in the Milledgeville *Argus* that he had

established the business of repairing clocks & watches in its various branches, having every material and convenience necessary; and hopes by moderate charges, workmanship and attention, to merit a liberal patronage.<sup>13</sup>

In the same advertisement he offered to manufacture gold watch chains, seals and keys. His business was to be carried out in Putnam County, where he was living and where earlier in the year (February) he had paid a poll tax.<sup>14</sup> However, he soon moved to Milledgeville, then the capital of Georgia and a center of commercial and political activity, from whence in November 1813 he announced that he had

commenced (and will continue a few months) the Clock and Watch-Making Business, at the storehouse formerly occupied by Hubert Reynolds, Esq. with every material and convenience for the dispatch of same.<sup>15</sup>

Within eight months the firm of T. & E. Reid had been formed and their initial advertisement informed the public that they had moved to a new shop at the west corner of the square in Milledgeville where "all kinds of watch and clock repairing will be promptly executed . . ."<sup>16</sup> A year later the firm placed an advertisement for the return of a watch

<sup>12</sup> *Georgia Journal*, Apr. 3, 1811, p. 3.

<sup>13</sup> *Georgia Argus* (Milledgeville), Aug. 11, 1813, p. 3.

<sup>14</sup> Putnam Co. Tax Digest for 1813, Capt. James McMurray's District: Templeton Reid, 31 1/4 cents tax.

<sup>15</sup> *Georgia Journal*, Nov. 3, 1813, p. 3.

<sup>16</sup> *Georgia Journal*, June 22, 1814, p. 3.

stolen from one Conrad Peterson on the road to Savannah and gave the maker's name and the serial number of the watch; the advertisement was signed: "T. & E. Reid, Watchmakers, Milledgeville."<sup>17</sup> In 1816 they advertised twice for the sale of their stock of gold and silver watches and other types of jewelry.<sup>18</sup> Probably because of their later association in Columbus, it was assumed by Cutten that the junior partner in the firm of T. & E. Reid was Elisha but the evidence indicates that it was Elijah Reid. His name is listed directly after Templeton's in the Baldwin County Tax Returns for 1815, 1816 and 1817<sup>19</sup> while Elisha, on the other hand, never paid a tax in Baldwin County and is recorded as the buyer and seller of land in Putnam County in 1816<sup>20</sup> and as a taxpayer in 1817.<sup>21</sup> However, in the spring of 1817 Elisha announced that he had established a manufactory for cotton gins at Wayne Street in Milledgeville.<sup>22</sup> Almost exactly a year later he retired from this business and recommended to the public Mr. A. J. Brown with whom he had worked for some time.<sup>23</sup> At about the same time the business association between Templeton and Elijah dissolved and Elijah and Elisha apparently returned to planting in Putnam County where, in 1820, 1822, 1824, 1825 and 1826 they paid poll and property taxes in the same district.<sup>24</sup> Additionally, in an announcement from Putnam County, Elisha Reid, Post Master, stated that Reidsville Post Office would be the new name for "the place formerly known by Reid's Mills, Mill Haven or Garner's Ferry"<sup>25</sup> and in 1822 he and Elijah offered a large reward for the return

<sup>17</sup> *Georgia Journal*, June 14, 1815, p. 3. The advertisement and an account of the alleged theft were repeated in the edition of June 21, p. 1.

<sup>18</sup> *Georgia Journal*, June 12, 1816, p. 3 and Nov. 20, 1816, p. 3. The latter was repeated in the editions of Nov. 27 and Dec. 4, 11, 18 and 25, 1816.

<sup>19</sup> See note 36 below.

<sup>20</sup> Putnam Co. Deed Books D (p. 189, Jan. 16, 1816) and E (p. 307, Feb. 8, 1816).

<sup>21</sup> Putnam Co. Tax Digest for 1817, Capt. Henry May's district. Returns for 1814, 1815, 1816, 1818 and 1819 have not survived.

<sup>22</sup> *Georgia Journal*, Mar. 4, 1817, p. 3.

<sup>23</sup> *Georgia Journal*, Mar. 31, 1818, p. 4.

<sup>24</sup> Putnam Co. Tax Digest for 1820, Capt. John Butts' district; 1822, Capt. William Weeks' district; 1824, Capt. John Edwards' district; 1825, 1826, Capt. Henry Blount's district.

<sup>25</sup> *Georgia Journal*, Mar. 7, 1820, p. 3.

of two Negroes stolen from them.<sup>26</sup> After 1826 Elijah disappeared from the public records but Elisha continued to advance his status as a planter as evidenced by the poll and property taxes he paid in the years from 1827 to 1836.<sup>27</sup>

Templeton continued in the watch and clock repair and jewelry business in Milledgeville<sup>28</sup> and there are periodic items which reveal many aspects of his life. In 1814 he published a notice<sup>29</sup> accusing one John Murphy of swindling and in 1814 and 1815 he was appointed an appraiser of two estates.<sup>30</sup> In 1821 he offered a \$50 reward to anyone bringing to justice John Johnson who had forged and traded notes on him<sup>31</sup> and he, in turn, was sued successfully by Andrew Ellis for non-payment of a \$50 note.<sup>32</sup> In 1817 he was fined \$2.00, along with four others, for shooting in the inhabited part of Milledgeville<sup>33</sup> and in 1824 he and twelve others were fined \$1.50 each for neglecting to patrol the night watch.<sup>34</sup> In 1822 he announced that he had

moved his shop to the new and convenient house on Hancock Street two doors west of the "Southern Recorder" office where all orders will be thankfully received and promptly attended to.<sup>35</sup>

From Baldwin County records we find him paying his poll tax in the years from 1815 to 1825 and, in addition to his own poll, taxes on a slave, a two-wheel carriage and a parcel of land in Milledgeville in 1819, 1820

<sup>26</sup> *Daily Georgian* (Savannah), May 27, 1822, p. 3.

<sup>27</sup> Putnam Co. Tax Digest for 1827, 1828, Capt. Henry Hamer's district; 1830, 1831, 1833, 1836, 389th district.

<sup>28</sup> *Reflector* (Milledgeville), May 5, 1818, p. 3; *Georgia Journal*, May 5, 1818, p. 3 and Mar. 21, 1820, p. 3.

<sup>29</sup> *Georgia Journal*, May 25, 1814, p. 3.

<sup>30</sup> Baldwin Co. Court of Ordinary Minutes, 1812-1819, pp. 87, 110.

<sup>31</sup> *Georgia Journal*, Oct. 9, 1821, p. 3.

<sup>32</sup> Baldwin Co. Court of Ordinary Records, Book A, 1808-1828, p. 187.

<sup>33</sup> Milledgeville City Commissioner's Minutes, Feb. 3, 1816-July 30, 1822, p. 54 (meeting of June 2, 1817).

<sup>34</sup> Milledgeville City Commissioner's Minutes, Aug. 15, 1822-Jan. 6, 1832, p. 106 (meeting of Apr. 21, 1824).

<sup>35</sup> *Georgia Journal*, July 9, 1822, p. 3; *Southern Recorder* (Milledgeville), July 9, 1822, p. 3.

and 1823; in 1821 he defaulted on his and his slave's tax and was assessed double value—\$1.25.<sup>36</sup>

Templeton Reid's business activities were not restricted to jewelry and watch and clock making during these years. In 1814 the Georgia Legislature passed an Act authorizing a lottery for the purpose of raising money to improve navigation on the Oconee River and drawings for the Lottery were begun November 6, 1815.<sup>37</sup> The following May Templeton was designated as a source of the few remaining undrawn tickets for this, the First Class of the lottery.<sup>38</sup> In May 1817 a public meeting was called to devise measures of cooperation with the navigation company toward making the Oconee navigable up to the mouth of Fishing Creek at Milledgeville.<sup>39</sup> The following week a report of the results of the meeting was published and it was noted that a committee of seven including Templeton Reid had been appointed to examine the river, devise a plan for opening it and solicit subscriptions for the funds deemed necessary for carrying out the work.<sup>40</sup> Evidently the subscription solicitation was successful because an advertisement for the Oconee Navigation Company signed by Templeton Reid and Farish Carter appeared in August seeking for immediate hire "50 Prime Negro Fellows" and a foreman to work on the river.<sup>41</sup> In order to raise even more money the scheme of the Second Class of the Oconee Navigation Lottery was announced in September and drawings were begun in December.<sup>42</sup> Meetings of the subscribers to determine how best to dispose of the money thus raised were requested the following June and July by the committee of which Templeton was a member.<sup>43</sup>

<sup>36</sup> Baldwin Co. Tax Returns, Capt. Byington's district, 1815, p. 234, 1816, p. 368; Milledgeville district, 1817, p. 54, 1818, p. 74, 1819, p. 199, 1820, p. 228, 1821, p. 80; Capt. Vickers' district, 1822, p. 68; Capt. Buchanan's district, 1823, p. 130, 1825, p. 42.

<sup>37</sup> *Georgia Journal*, June 14, 1815, p. 1.

<sup>38</sup> *Georgia Journal*, May 22, 1816, p. 3.

<sup>39</sup> *Georgia Journal*, May 20, 1817, p. 3.

<sup>40</sup> *Georgia Journal*, May 27, 1817, p. 3.

<sup>41</sup> *Georgia Journal*, Aug. 12, 1817, p. 3.

<sup>42</sup> *Georgia Journal*, Sept. 30, 1817, p. 1.

<sup>43</sup> *Georgia Journal*, June 16, 1818, p. 3 and July 14, 1818, p. 3.

Georgia's lands west of the Oconee River were settled by a series of land lotteries in which citizens of the State could enter, providing they satisfied certain requirements set by the Legislature. If the applicant drew successfully, he paid a fee and took out a grant to his land. Templeton entered the third lottery in 1820 and won Lot No. 42 in the 13th District of Irwin County. He received the grant on Jan. 10, 1822 and the same day sold it to Giles Tompkins of Putnam County for \$500.<sup>44</sup> The deed for this sale was not recorded until Mar. 21, 1836, just before Reid moved to Columbus.<sup>45</sup> Evidently Reid was not the type of man who wished to be encumbered by land ownership since this transaction and the Milledgeville lot mentioned above are his only recorded ventures into real estate. Apparently he never married; no record has been found and he was listed only in the U.S. Census for 1850, which was the first year that individuals who were not "heads of households" were enumerated.<sup>46</sup>

During these early years Reid's self-confidence developed greatly and his 1823 advertisement clearly reveals pride in his abilities:

Every branch of the subscriber's business will be strictly attended to, and executed in the most workmanlike manner, by him who is most capable of doing so. T. Reid.<sup>47</sup>

Later that year he advertised that all watches which had lain repaired in his shop for one year would be sold to defray expenses.<sup>48</sup>

In 1824 Reid broadened the scope of his business and at the same time demonstrated further growing pride in his own capabilities. He announced that

The subscriber is prepared to make rifles of a very superior order priced from one to five hundred dollars and barrels fifty dollars. Specimens of his workmanship may be seen here, and as to his skill in making a close shooting gun, being more than ordinary,

<sup>44</sup> State of Georgia Land Grant signed by John Clark, Governor, dated Jan. 10, 1822.

<sup>45</sup> Putman Co. Deed Book O, p. 392.

<sup>46</sup> U. S. Census, City of Columbus, Ga., Muscogee Co., June 1, 1850: "Templeton Reid, male, age 61, machinist, born Virginia."

<sup>47</sup> *Georgia Journal*, Feb. 4, 1823, p. 3.

<sup>48</sup> *Georgia Journal*, May 20, 1823, p. 3.

it cannot be questioned by any who know him as a Rifleman. Templeton Reid.<sup>49</sup>

This advertisement was repeated in the two following weeks' editions of the *Georgia Journal* but was the last Reid placed until 1832. However, he apparently conducted his business at the same location in Milledgeville until about the middle of 1828, when James Berry advertised in the *Southern Recorder* that

he continues to repair watches and clocks at the shop lately occupied by Mr. Templeton Reid with whom for a number of years he worked in the capacity of a journeyman.<sup>50</sup>

In the autumn of 1828 Reid was taken to court by Philip Ryland, bearer of a note given by Reid in 1824 to a third party and only partially paid; he was found guilty and was ordered to pay the balance. A copy of the note was entered in the Court record and signed by Reid.<sup>51</sup>

After this, Reid disappeared from public records for a year and a half; there is no indication of his whereabouts until April 1830. In that month the Milledgeville City Commissioners found two Negroes, one a slave, the other a freeman, guilty of gambling "in Mr. T. Reid's back shop" and sentenced them to "thirty nine lashes well laid on by the Marshall."<sup>52</sup> Reid himself did not make news, however, until July, when his interest in Georgia's newly discovered gold became apparent.

#### THE COINING EPISODE

The first discovery of gold in Georgia was made sometime during the decade of the 1820's but the exact date cannot now be established. It is clear, however, that by 1828-9 the news of the discovery had travelled far and prospectors in great numbers were flocking into northwest

<sup>49</sup> *Georgia Journal*, June 22, 1824, p. 3.

<sup>50</sup> *Southern Recorder* (Milledgeville), June 28, 1828, p. 3.

<sup>51</sup> Baldwin Co. Court of Ordinary Records, Book A, 1808-1828, p. 328. A detailed record of the case appears in Baldwin Co. Court of Ordinary Minutes, 1827-1837, pp. 73-75.

<sup>52</sup> Milledgeville City Commissioner's Minutes, Aug. 15, 1822-Jan. 6, 1832, p. 379 (meeting of Apr. 9, 1830).



Georgia.<sup>53</sup> The town of Milledgeville, in its role as state capital, was a center of political turmoil occasioned by the prospectors' invasion of the Cherokee Indian lands west of the Chestatee River on which the richest deposits were found and Reid must have sensed the "gold fever" almost immediately. The miners frequently found it most expedient to sell their gold to speculators in the form in which they found it—dust, grains and nuggets—and the lack of an assaying laboratory resulted in their having to accept prices substantially lower than the actual value of gold in their samples. Reid most certainly recognized the hardships and inconveniences caused the miners by these conditions and must have surmised that an establishment in the vicinity of the mines to convert the dust into coins would be an instant success. Exactly how Reid spent the two years from 1828 to 1830 we do not know, but it is easy to imagine that, in addition to earning his living in the jewelry trade, he was exploring the gold fields, studying coin-making methods, designing and building his press and engraving the dies. In any case, the result of his planning was clearly revealed to the community on July 24, 1830, when news items appeared in the Milledgeville newspapers announcing that Reid was coining gold in pieces of \$2½, \$5 and \$10:

We have examined, during the past week, with great pleasure, an apparatus constructed by our very ingenious fellow citizen, *Mr. Templeton Reid*, for the purpose of putting gold into a shape more convenient than that in which it is originally found. He makes with great facility and great neatness, pieces worth ten, five and two and an half dollars. No alloy is mixed with it, and it is so stamped that it cannot be easily imitated. He sets out soon for the mines, and intends putting his apparatus into operation, as soon as he reaches them.<sup>54</sup>

About \$1500 worth of Georgia Gold has been stamped by our ingenious townsman, Mr. Templeton Reid, with handsome dies,

<sup>53</sup> Green, *GHQ* 1935, pp. 98–100 gives a comprehensive survey of the earlier literature and conditions prevailing in the gold region in 1828–1830. Compare Coulter, *Auraria*, pp. 1–3 for a colorful description of the social and political events taking place in north Georgia at the time.

<sup>54</sup> *Georgia Journal*, July 24, 1830, p. 2; note that Reid was coining the gold without diluting it to a standard fineness by alloying.

showing the actual value of each piece of metal, in parcels of \$2.50, \$5 and \$10. The pieces of ten dollars have on one side this inscription: GEORGIA GOLD, 1830, and on the other, TEN DOLLARS, TEMPLETON REID, ASSAYER. The die of the five dollar piece is not inferior in execution to the stamp on the coin issued from the National Mint. Mr. Reid informs us that the gold thus stamped by him will be taken at the Mint and at most of the Banks for the value it purports on its face to bear. This will give it a pretty general currency, and make it answer the purposes of money. Mr. R. intends making an establishment in the gold region for the purpose of assaying and marking the gold as it may be found which will be a great convenience and saving to the miners, who have heretofore been obliged to part with the precious metal in its crude state at a loss from five to fifteen per cent.<sup>55</sup>

No more is heard from Reid himself for about a month but in the interim he carried out his stated intention and moved to Gainesville. His coins must soon have reached Augusta, the main hub of commerce in inland Georgia at the time, and excited considerable interest, for, on August 16, a letter to the editor of the *Georgia Courier* appeared in which the writer, "No Assayer," attacked the value of Reid's coinage:

*Mr. Editor:*—Although no *Assayer*, I have taken the trouble of having a piece of Mr. Templeton Reid's coining, purporting to be worth \$10, assayed at the mint.—It was found to be but  $22\frac{1}{2}$  carats fine; consequently worth a trifle more than Georgia Gold-dust.—The actual value is \$9.38 cents, giving Mr. Reid a profit of about 7 percent. The value of Mr. Reid's Coin may be estimated as follows:—

\$10 pieces . . . . .	\$9.38
5     "     . . . . .	4.69
2.50   "     . . . . .	$2.34\frac{1}{2}$ No Assayer. <sup>56</sup>

<sup>55</sup> *Southern Recorder* (Milledgeville), July 24, 1830, p. 3; the article was reprinted in several newspapers including the *Daily Georgian* (Savannah), July 29, 1830, p. 2 and the *North Carolina Spectator & Western Advertiser*, Aug. 13, 1830, p. 3.

<sup>56</sup> *Georgia Courier*, Aug. 16, 1830, p. 2.

Thus began the series of events which lead to a relatively quick end to Reid's coining activities, to what was probably a bitter experience for Templeton Reid, and to the basic reason for the present-day scarcity of his coins.

Reid wasted no time coming to his own defense and his reply to No Assayer's attack appeared in the *Georgia Journal* of September 11 over the dateline Aug. 25, Gainesville, as follows:

Messrs. Editors—I have just seen an article in the Courier of the 16th inst. which I wish you to re-publish, with my remarks on the same. It is over the signature of "No Assayer". No Assayer begins by acknowledging he is no assayer, which was unnecessary; for I expect every body knows that, even before *his expose* on the subject of my coin. But if he had ended by saying he was no calculator, nor knew anything about the standard worth of gold by the carat, he would deserve some credit for his candor. He says he 'has taken the trouble to have a piece of my coin, purporting to be worth \$10, assayed at the Mint. It was found to be but  $22\frac{1}{2}$  carats fine.' Now reckon again—The \$10 piece I have estimated at 96 cents per dwt.—he at  $22\frac{1}{2}$  carats fine—value \$9.38—'a trifle'—'consequently worth a trifle more than Georgia gold-dust.' And another strange calculation,—\$9.38 cents, giving him a profit of about 7 per cent.' when it is well known that the buyers have to give from  $87\frac{1}{2}$  (the lowest) to 90 cents per dwt. at the mines, which is more than 22 carat gold is worth at the Mint. And the gold dust taken collectively from the mines, with the ordinary cleaning, will loose from 3 to 6 per cent in fluxing. Where, then, is the '7 per cent profit'. No buyer can average one month's business, for the gold fluxed, to cost him as low as the worth of  $22\frac{1}{2}$  carats fine at the Mint. I do not know how much that "trifle more than Georgia gold-dust" is, and it might save some of the heavy buyers, perhaps some in Augusta, to know, if it is not too late, how much they may loose on their gold in fluxing. For according to No Assayer's weighty statement, they must be engaged in a bad speculation, unless they get a premium for the sand, &c.

But as the currency and demand for my coin, and its credit in some of the Banks, seem to warrant the course, I shall continue to stamp and issue the Georgia gold in pieces of \$10, \$5 and \$2.50.

TEMPLETON REID

The Milledgeville, Augusta, Macon, Columbus and Athens papers, will please publish the above, and forward their accounts to me, if it is convenient to do so.

T.R.<sup>57</sup>

Reid apparently thought the fluxed gold dust, once separated from the sand and other non-metallic contaminants, was nearly pure and he valued it at 99 percent of the then-current price of 96.97¢ per dwt. for pure gold.<sup>58</sup> He seems to have been unaware that gold as found in nature is always alloyed with other metals (most frequently with silver and tin) and must be chemically refined to achieve complete purity. In Reid's time the most common field method for refining and assaying was to subject the molten metal to a burning process in which the more chemically reactive alloying metals were oxidized to volatile or insoluble slag while the unreactive gold remained in the elemental state. Because of his failure to attach sufficient importance to the need for such refinement of the fluxed dust, Reid extracted too much seigniorage in the process of buying dust and converting it to coin.

On September 16th the following three items appeared on the editorial page of the *Georgia Courier*:

<sup>57</sup> *Georgia Journal*, Sept. 11, 1830, p. 3. Reid's reply was reprinted in several newspapers, notably the *Georgia Courier*, Sept. 16, 1830, p. 3, the *Constitutionalist* (Augusta), Sept. 17, 1830, p. 3, the *Augusta (Ga.) Chronicle and Ga. Advertiser*, Sept. 18, 1830, p. 2, the *Macon (Ga.) Telegraph*, Sept. 18, 1830, p. 3, the *Federal Union* (Milledgeville), Sept. 18, 1830, p. 3 and the *Athenian* (Athens), Sept. 21, 1830, p. 3. It is interesting to note that in the autumn of 1830 the price paid by the U.S. mint for Georgia gold dust as received was 88.6¢ per dwt. (Letter by Samuel Moore, mint director, to an unknown recipient and dated Nov. 20, 1830; the original is preserved [see note 63]). This figure is very close to the average paid by gold buyers at the mines—88.75¢ per dwt.—as quoted by Reid.

<sup>58</sup> *Southern Recorder* (Milledgeville), Aug. 21, 1830, p. 3, quoting the *U.S. Telegraph* (Washington. D.C.).

We are informed, that about \$230,000 of Georgia Gold, has been received in this city during the last nine months.

NO ASSAYER's reply to Mr. TEMPLETON REID, is received, and will appear on Monday.

Report says, Mr. TEMPLETON REID, whose reply to No Assayer we publish to-day, is coining and stamping, at his mint in Gainesville, not less than \$700 of Georgia Gold per day.

Allowing No Assayer's calculation of his profits to be correct at 7 per cent, he is making about \$15,000 per annum. This is better business than gold digging.<sup>59</sup>

No Assayer's reply to Reid's defense had the intended effect of destroying public confidence in Reid's coins and ultimately forced him to cease his operation. No Assayer first "proves" that Reid's own figures show his profit to be in the neighborhood of 7 percent and then he goes on to chastise Reid unmercifully for his audacity to coin money in "the very face of" the Constitution:

Mr. Editor,—The *facts* published in the Georgia Courier of the 16th ult. respecting the value of "Templeton Reid's Coin," appear to have excited his *golden* calculation, so as to produce an essay in the advertising columns of the Georgia Journal; which displays just about as much knowledge of calculation, as No Assayer supposed he possessed of the art of assaying. By his statement, (which by the bye, is neither one thing or the other, for it proves nothing at all,) he says "the buyers have to give from  $87\frac{1}{2}$  to 90 cts. per dwt. at the mines." The average of the the two extremes is . . . . .  $88\frac{3}{4}$  cts.

Allow the loss in fluxing to be what he states,

"3 a 6 pr. ct." the average will be about . . . .	$4\frac{1}{2}$	cts.
	<hr/>	
	93 $\frac{1}{4}$	
he "estimates" his gold, he says, at . . . . .	96	
	<hr/>	
	Nett gain per dwt.	2 cts.

<sup>59</sup> *Georgia Courier*, Sept. 16, 1830, p. 2; if Reid had made \$700 worth of coins every day but Sunday, 313 days per year, his profit would have been  $\$700 \times 313 \times 0.07 = \$15,530$  per annum. In fact, as will be seen shortly, his business was far from being this lucrative.

But the average loss in fluxing is not  $4\frac{1}{2}$  cts. pr. dwt. as he states, it is not over two, and if any person wishes proof of this fact, they can satisfy themselves by calling upon any of the "heavy buyers in Augusta." Now, 2 cts. being the average loss in fluxing, taken from  $4\frac{1}{2}$  cts. leaves him a further gain of  $2\frac{1}{2}$  cts., which added to  $2\frac{3}{4}$ , makes  $5\frac{1}{2}$  cts. per dwt., or about  $5\frac{1}{2}$  pr. cent gain, agreeably to *his own calculation*. Had he not better take his own advice and "reckon again?" Perhaps he will make out the 7 pr. cent yet. He "estimates" his \$10 pieces at 96 cts. per dwt.—as though his "estimate" was conclusive, and that of the United States mint questionable. The value of his pieces has been repeatedly tested at the mint, and found to be worth \$9. 38–100—the fineness of the gold but  $22\frac{1}{2}$  carats—worth about 90.90 cts. pr. dwt. and not 96 cts. as he states. Whilst upon this subject, to say nothing further of Mr. Templeton Reid's calculation upon assaying, it may not be improper to suggest the evil that may arise from the fact of an individual, taking upon himself the power of issuing Coin, contrary to the Constitution of the United States. If *he* has the right, every individual has the same prerogative. That being the case, does not the evil at once bear upon an honest community? I see no good to result from such a profession, as "assayer of Georgia Gold," but much injury. It is assumed, no one is so ignorant or narrow-minded as to suppose, that a right not delegated to the States but actually forbidden, by a special clause of the Constitution of the United States, may be assumed by or granted to an individual. I take it for certainty, that the object of this clause is to have a national, uniform, *accurate* coin. I know not that there is a penalty for such a violation of the Constitution, which surely is a wise provision; but if there even be not, respect for that instrument should make a private individual blush with shame, at the thought of taking an advantage to practice a fraud upon the Country, if not knowingly, because he shuts his eyes against truth and honesty; because it could never be believed, that any one would attempt a privilege that common sense must instruct him, is forbidden. But in the very face of this instrument, Mr. Templeton Reid assumes

the power of coining money, and in the plenitude of his greatness, stamps it with what ever value he thinks proper to set upon it. And when a friendly hint is given him and the public, of his mistake, he tells the world, (or rather appears to *wish* the coommunity (sic) to understand,) that the mint of the United States, managed by men of the strictest integrity, and chosen for their knowledge in the science of mineralogy, and bound by their oaths and bonds for their faithful discharge of the duties connected with this department of Government, is beyond a doubt, wrong—"he (Templeton Reid,) shall continue to issue his coin, &c." The public are therefore notified that he cares not for the Constitution of the U. States, or the value of gold at the proper place of coining, the mint. He hints that the Banks take his coin—here, they do not. They wish above all others, the American Eagle, bright from the mint. I shall take them at their proper value, \$9 38–100, and no more,—although they may have \$10 marked upon them in bold figures. So much for the "Georgia Assayer" and his mint.

NO ASSAYER<sup>60</sup>

No Assayer's communication provides the key to the history of Reid's minting operation; because of the excess seigniorage extracted by Reid in his early production—whether intentional or inadvertent—the confidence of the public in his coins seems to have been quickly undermined and their circulation was severely jeopardized. A detailed examination of the evidence supports this view.

In his original letter, no Assayer stated that the Mint assayed a \$10 piece at .9375 fine (22½ carats). No record of this assay or of No Assayer's correspondence with Mint officials regarding it is available but the analysis corresponds closely to the average assay for Georgia gold dust.<sup>61</sup> Between June 19, 1830 and Feb. 7, 1831, some 29 deposits of Georgia gold dust were made at the Mint with gross weight of 145, 983 dwt.; the average quality figure was .937 fine. In addition, J. R. Eckfeldt

<sup>60</sup> *Georgia Courier*, Sept. 20, 1830, p. 2.

<sup>61</sup> Gold Bullion Register, Jan. 7, 1828–Dec. 27, 1836, National Archives Record Group 104, Entry 113 (F. R. Holdcamper, Inventory of Records, Jan. 1968).

and W. E. DuBois, the Chief and Assistant Assayers, respectively, of the U. S. Mint, published average weights and finenesses for Reid's coins tested in 1830 as follows: \$2.50–60.5 grains, .932 fine and \$10–248 grains, .942 fine.<sup>62</sup> On Nov. 19, 1830, five of Reid's coins were deposited at the Mint for coinage and the weights and fineness of these were recorded as well: two \$2.50–59 and 60 grains, .936 and .954 fine, respectively; one \$5.00–122 grains, .973 fine and two \$10–246 and 247 grains, .943 and .997 fine, respectively.<sup>63</sup>

In 1830 United States quarter-eagles, half-eagles and eagles weighed 67.5, 135 and 270 grains respectively and were .9167 fine. The ratios of the weights of gold in Reid's coins to those in official issues would, therefore, indicate average values for Reid's coins of \$2.27 for the \$2.50 piece, \$4.78 for the \$5.00 and \$9.58 for the \$10.00. In the summer of 1830 the market price of pure gold was quoted at 96.97¢ per dwt.<sup>64</sup> and the same figures for the value of Reid's coins are obtained if this measure of worth is used in the calculation. In 1834, however, the official weight of United States gold coins was reduced so that under the new law the quarter-eagle contained 58 grains, the half-eagle 126 grains and the eagle 232 grains of pure gold. The effect was to raise the price of gold to 103.4¢ per dwt. and this, of course, increased the worth of Reid's coins. Eckfeldt and DuBois calculated the Reid \$2.50 and \$10.00 pieces to have new values of \$2.43 and \$10.06, respectively.<sup>65</sup> These figures were quoted by A. E. Outerbridge, who concluded that the coins were worth more as bullion and that therefore most were

<sup>62</sup> Jacob R. Eckfeldt and William E. DuBois, *Manual of Gold and Silver Coins* (Philadelphia, 1842), p. 160. The same information is contained in the 1851 edition.

<sup>63</sup> U. S. Mint Correspondence Records, 1792–1904, National Archives Record Group 104, Entry 1, General Correspondence (F. R. Holdcamper, Inventory of Records, Jan. 1968). Note the wide variation in fineness but relatively constant weights of Reid's coins. This indicates that, although his weighing method was good, his assays (if indeed any were made at all) were extremely crude and were the real root of the lack of public confidence in his output. Had he actually assayed the fluxed gold and diluted to constant gold concentration with, for example, copper, his career in this business might have been quite different.

<sup>64</sup> See note 58 above.

<sup>65</sup> See note 62 above.



melted for the gold content.<sup>66</sup> He gave this as the reason for the present-day rarity of Reid's issues and his erroneous conclusion that they were worth more as bullion when melted has been promulgated by more recent writers.<sup>67</sup> In fact, most of Reid's coins were melted in 1831 when the actual value was substantially less than the face value.

Eckfeldt and DuBois state that Reid's coins were received at the Mint twice in large quantity (quantity not specified) but not after 1831 and examination of the Mint records at the National Archives substantiates this. The *Gold Bullion Register* makes no mention of any Reid coins in 1830 but for Jan. 13, 1831, carries the following entry:

Deposit No. 1854, by The Bank of the United States, bars and Reid's stamped pieces, gross weight 327 oz., 15 dwt., 0 gr., standard weight [i.e., if the fineness were .9167] 351 oz., 14 dwt., 18 gr., value in U. S. coins, \$6253.11.0.

Unfortunately, there is no division of the deposit into the amount represented by bars and the amount in Reid's coins and, therefore, we are unable to determine precisely the value of coins melted. We can, however, make a good and interesting estimate. From the same source we find that in January and February 1831, four deposits of Georgia gold bars, numbers 1855, 1862, 1863 and 1868, were made and the total weight as deposited was 19,499 dwt. Calculating from the standard weights given for each deposit we obtain an average fineness for the bars of .944. The quality of Deposit No. 1854, calculated in the same manner is .983 fine and it seems logical to assume that the difference between this quality and the Georgia bar average of .944 arose because of Reid's coins, which may very well have been subjected to some degree of purification by burning after "No Assayer's" initial attack. Based on this premise, of the 6,555 dwt. deposited by the Bank of the United States, approximately 6,040 dwt. was in Reid coins with an average fineness of .987.

<sup>66</sup> A. E. Outerbridge, Jr., "Curiosities of American Coinage," lecture delivered at the Museum of Science and Art, University of Pennsylvania, Philadelphia, Mar. 23, 1898 and reprinted in *Popular Science Monthly* 53 (1898), p. 600.

<sup>67</sup> Among whom, see Edgar H. Adams, *Adams' Official Premium List of United States Private and Territorial Gold Coins* (N.Y., 1909), p. 35.

The second large quantity deposit to which Eckfeldt and DuBois referred is recorded in the Mint *Register of Gold Bullion Deposited*. The entry for Aug. 3, 1831 lists:

From Georgia, dust and Reid's coined pieces, 6 oz., 14 dwt.  
After melting, 6 oz., 9 dwt., 12 gr., deposited by Robert H. Patton.<sup>68</sup>

Here again there is no notation regarding the relative division between dust and Reid's coins. An estimation, in this case, is on less solid ground than in the previous example. There is no measure of the quality of the deposit after melting; the recorded data indicate only that the weight loss (due to sand and other non-metallic contaminants remaining behind in the melting process) was about 3.4% of the gross weight. Examination of 35 Georgia dust samples from the same *Register* indicates that the weight average melting loss was 2.7% from an aggregate weight of 37,572 dwt. Individual losses varied from none to as high as 11.6%. The loss in the case of Patton's deposit is about a third higher than the overall average, notwithstanding the fact that it was mixed with some amount of Reid's coins which, since they had already been melted once, would not be expected to contribute to further weight loss. Thus Patton's sample of dust had higher than the usual amount of unmeltable impurity but there is no way to determine from the available data how much higher than the average it was. If the dust contained 5.0 to 5.5% contaminants, the weight of Reid's coins in the deposit would have been approximately 50 dwt. which seems to be a not unreasonable figure in view of Eckfeldt and DuBois' reference to deposits of large quantity.

The five coins received at the Mint on Nov. 19, 1830<sup>69</sup> for assay and deposit constitute an additional 30 dwt. and, when added to the estimates from the Bank of the United States' and Robert Patton's deposits, make a total of approximately 6,120 dwt. of Templeton Reid's coins melted to bullion in the Mint furnaces. It is apparent that the total

<sup>68</sup> *Register of Gold Bullion Deposited*, Apr. 20, 1831–Oct. 21, 1833, National Archives Record Group 104, Entry 118 (F. R. Holdcamper, Inventory of Records, Jan. 1968).

<sup>69</sup> See note 63 above.

number of coins made by Reid is much smaller than earlier writers have supposed.<sup>70</sup>

It is evident, then, that Reid's coins, at least those which he produced during the early days of his operation, had an actual value substantially below that on the face and, as a result, he failed to gain the confidence of the public. In spite of the fact that he apparently attempted to improve the quality, the coins were quite rapidly retired from circulation by banks at actual value and subsequently shipped to the U.S. Mint for deposit and recoinage. These events would naturally result in a short life for his minting operations and we have a direct statement about the length of time Reid was in business in the report which appeared in the *Georgia Courier* on Dec. 2, 1830;

We have just seen a certificate from the Mint of the United States relative to the weight and standard value of Templeton Reid's pieces of Gold Coin. There were five pieces assayed, two of \$2.50, two of \$10.00 and one of \$5.00, and they fall short of the Standard value of American Coin from 5 to 13 pr. cent. We think the Legislature, in its anxiety to get the Gold, to be found everywhere about the Cherokee line, should also consider it important to preserve its purity.—We are informed that Mr. Reid has intermitted his operations since the sitting of the Legislature, and if nothing is done on this subject, that

<sup>70</sup> It is possible to make an estimate of the number of coins stamped by Reid using the figure of 6,120 dwt. melted and the value of the deposit made by the Bank of the United States. From the latter we calculate that the deposit was worth 95.4 cents per dwt. since its total weight is given as 6,555 dwt. and its value in U.S. coins as \$6,253.11. Thus the approximate worth of Reid's coins is \$5,840 (6,120 dwt.  $\times$  95.4 cents per dwt.). If we assume that Reid made coins in the same ratio of denominations as represented by the estimated extant specimens of the three values, we can derive a reasonable figure for the number of each denomination and the total number he struck by making use of the approximate worth figure calculated above. When this is done we obtain a figure for the total number of coins of about 1,440. Since he operated his mint in Gainesville only from about Aug. 1 to Oct. 18 (see note 71 below), perhaps 70 working days, his average daily rate of production was quite similar to that of the Bechtlers in the first three years of operation of their North Carolina mint as calculated from the data given in note 75 below. It appears likely that the figure of \$700 per day for Reid's output as reported in the *Georgia Courier* was highly exaggerated.

several others are prepared to furnish our friends on the frontier with five dollar gold pieces to pay their subscription to the *Georgia Courier*.<sup>71</sup>

Further evidence to support the notion that Reid failed to gain the public's confidence is to be found in articles which appeared in North Carolina newspapers in mid-1831. At the time that Christopher Bechtler, Sr. was ready to produce coins from North Carolina gold the following editorial appeared in the Rutherfordton paper:

*Gold Pieces.* We have just been shown a specimen of the ingots assayed and stamped by Mr. Christopher Bechtler, at his establishment near this town. The piece shown us, in point of the execution of the relief letters is not as handsome as we had wished to have seen; but Mr. B. informs us that he intends to prepare new dies and make such improvements as have suggested themselves to his mind. The pieces are 20 carats fine, or 2 carats below the standard coin of the United States. The piece of \$2.50 weighs 3 dwts. and  $\frac{3}{4}$  gr., and that of the \$5.00 piece 6 dwts.  $1\frac{1}{2}$  gr., or very nearly so—making them worth about 82 cts. 6 m. per dwt. This standard has been assumed on account of the great variety which exists in the fineness of the gold, as obtained from the mines—some of it being 22 and others only 19 car. fine. Mr. B. has undertaken this enterprise at the suggestion of several gentleman (sic) of the highest standing among our miners, for the purpose of putting into use the actual resources of this region, as a circulating medium in the transaction of business.—Since the State Bank has limited her issues & is drawing into her vaults the notes which have been loaned to our citizens, in the settlement of her outstanding accounts, great inconvenience has been felt in business transactions with the Bank, and also for the common

<sup>71</sup> *Georgia Courier*, Dec. 2, 1830, p. 3. The new session of the Georgia Legislature began on Oct. 18, 1830. This news article appears to refer to the Assay Report cited in note 63 above, where the assay of a single Reid \$5 piece is reported. Eckfeldt and Dubois (see note 62 above) failed to include such an assay in their summary work and stated that only \$2.50 and \$10 coins were assayed at the Mint. The reason for the omission is unclear.

purposes of commerce. How far the scheme will succeed in effecting these objects, we have yet to learn. The risk and expense of sending gold to the mint is such that the owners of the mines often find it difficult to dispose of the products of the mines at a fair value, as things now are.—The urgent petition to Congress for the establishment of a branch of the U. S. Mint in the “gold region” having failed, and the gold produced being in a fair way to entirely disappear from the country and fall into the rusting hoards of Europe, this scheme has been resorted to as the only means of effecting the objects in view—the retaining this precious metal among us. To give stability and effect to this scheme it is necessary that implicit confidence should be reposed in the Assayer. Mr. Bechtler is, unquestionably a man of competent science and skill to assay and bring the gold of the mines to a standard value, in the form of coin; and we believe he has the entire confidence of all who have had any acquaintance with him—that he is a man of the strictest honesty and singleness of purpose,—and we trust, public confidence will not be disappointed in regard to him, as it has been with some others who have attempted the assaying and stamping of gold.<sup>72</sup>

Although Reid was not mentioned by name, the reference to his activities is inescapable since he was the only one to have carried on such coining prior to the Bechtlers.

The editor of the *Georgia Courier* had this to say in the edition of Oct. 3, 1831 regarding the output of Bechtler's North Carolina mint:

There has recently been brought to this market N. Carolina Gold in a new shape, that of \$5 pieces coined in Rutherford county by C. Bechtler, Assayer. The Gold is 20 carats fine, and the pieces weigh generally 6dwt. If 24 carats, worth 97 cts. per dwt. is taken as the standard, the present pieces are worth only 81 cts per dwt- equal to \$4.86; being a gain to the Assayer of 14 cents, or nearly 3 per cent. There are pieces of other denominations, but we have seen only those purporting to be

<sup>72</sup> *North Carolina Spectator & Western Advertiser*, July 2, 1831, p. 3.

worth \$5. This Mr. Bechtler is the *Templeton Reid* of N. Carolina. We believe Mr. Reid has the credit of originating this new way of making money. Our old correspondent, *No Assayer*, used to think it was an invasion of the rights of the United States Mint, and might be made a source of the most extensive imposition on the public.<sup>73</sup>

The coins made by Bechtler were stamped with the weight of the piece, the fineness in carats and the dollar value; the purchaser knew, therefore, the exact amount of seigniorage extracted by the coiner which was not the case with Reid's coins. In addition to marking each coin, Bechtler adopted and advertised a plan for handling all gold samples brought to him for coining; it included an assay by "fire ordeal" and a small portion of each assay returned to the owner for further proof if he so desired.<sup>74</sup> Furthermore, the advertisement contained Bechtler's rates for fluxing, assaying and coining; for the last the fee was 2.5%. This proved to be a completely acceptable figure as evidenced by the fact that the mint operated for approximately 20 years and, in the period from its inception, in July 1831, to February 1840, produced a total of \$2,241,840 in \$1.00, \$2.50 and \$5.00 coins.<sup>75</sup> Reid's unhappy experience was of great benefit to Bechtler.<sup>76</sup>

Reid's coining activities aroused a storm of protests regarding the legality of such actions under the Constitution. "No Assayer's" reply

<sup>73</sup> *Georgia Courier*, Oct. 3, 1831, p. 2.

<sup>74</sup> *North Carolina Spectator and Western Advertiser*, Aug. 27, 1831, p. 3.

<sup>75</sup> *State Rights Sentinel* (Augusta), Sept. 13, 1836, p. 3; see also Thomas Featherstonhaugh, "A Private Mint in North Carolina," *Southern History Association* 10 No. 2 (1906), p. 8, reprinting the report of John H. Wheeler, Superintendent of the U. S. Mint at Charlotte, N. C. to the Secretary of the Treasury, Feb. 10, 1840.

<sup>76</sup> It is interesting to note that there was some continuing acceptance of Reid's coins since a deposit ("No. 2,275, Sept. 8, 1832, Bars, Reid's coins, and amalgam from N. Car.") containing a small quantity of coins was sent to the mint in Philadelphia by H. L. Kent (see note 61) two years after Reid had ceased production. Also a report appeared in the *Georgia Journal*, May 7, 1834, p. 2, of a gold-plated brass counterfeit of a Reid \$2.50 piece being received in Milledgeville. It was stated to be materially different in stamp from the genuine Reid coin, the die for which was at that time in the capital. The report was reprinted in the *State Rights Sentinel* (Augusta), May 12, 1834, p. 3.

to Reid's defense was only the first; three weeks later the *Richmond Whig* declared:

A Mr. Templeton Reid, has established a mint at Gainesville, Ga. and coins gold in pieces of \$10, 5 and 2.50 value. The Augusta Courier estimates the quantity coined, at \$700 per day, and a correspondent combs his profits at 7 percent, equal to \$15,000 per annum. Mr. Reid denies them to be so much. We did not know before, that individuals possessed the right of coining money.<sup>77</sup>

This editorial opinion was reprinted in the *Georgia Courier* whose editor, in a further effort to discredit Reid, expanded it with the unacknowledged addition of the following:

So far from individuals having "the right of coining money", it is not even possessed by the States. They parted with the right to the Congress of the United States, on the adoption of the Federal Constitution, and in that body it still resides by the 8th Section of the 1st article of that instrument.

The coinage of money is an essential attribute of sovereignty. "Since the State is surety, says Vattel, on the law of nations, for the goodness of money and its currency, the public authority alone has the right of coining it." Such has been the uniform law of the land, both in this country and in England; and any attempt to coin the money of the realm, however pure the metal, or however ample its weight, independent of public authority and sanction, brings down upon the individual the penalties of treason.—So unquestionable are these facts, that we are led to believe that there is some mistake in the statements, and that no person would have the hardihood to encounter the perils of the law by such an undertaking.<sup>78</sup>

The *Hancock Advertiser* gave additional local publicity to these accounts by reprinting the *Georgia Courier* article verbatim.<sup>79</sup> It remained for

<sup>77</sup> *Richmond (Va.) Whig*, Sept. 23, 1830, p. 3.

<sup>78</sup> *Georgia Courier*, Oct. 11, 1830, p. 2.

<sup>79</sup> *Hancock Advertiser* (Mt. Zion, Ga.), Oct. 18, 1830, p. 3.

the editor of the *New York American*, however, to place the correct interpretation on Reid's action:

STRICT CONSTRUCTION OF THE U.S. CONSTITUTION—  
We find in the Charleston Courier the following article: "About two hundred and thirty thousand dollars worth of Georgia gold, is said to have been received in Augusta, within the last nine months. Report says, Mr. Templeton Reid, is coining and stamping, at his mint in Gainesville, (Ga.) not less than \$700 of this gold per day. Allowing his profits to be 7 per cent he is making about \$15,000 per annum. This is better business than gold digging." According to the Constitution of the United States, Art. 5 (sic), Sec. 8, "Congress shall have power to coin money, and regulate the value thereof, &c.:" and by Art. 1, Sec. 10, it is declared that "no *State* shall coin money." But as the Constitution does not express that Congress shall have the sole power of coining; and as States only, and not individuals, are forbidden to coin, this Mr. Reid, who is doubtless of the Virginia school of strict construction, and who is not a State, finds himself at liberty to exercise this high attribute of sovereignty.<sup>80</sup>

This analysis was reprinted in the two principal Washington, D. C. newspapers<sup>81</sup> and received nationwide attention when it was republished in *Niles' Weekly Register*.<sup>82</sup> Thus the right of individuals to issue private coinage was advanced but it was too late to help Reid.

#### THE COTTON GIN YEARS

Reid's confidence in his ability to conceive ideas and to put them into practice was high, as his advertisements, his feeling with regard to the quality of his coins and his reponse to No Assayer's attack demonstrated. The events of the summer of 1830 must have been a severe

<sup>80</sup> *New York American*, Sept. 28, 1830, p. 2.

<sup>81</sup> *National Intelligencer* (Washington, D.C.), Oct. 1, 1830, p. 1; *National Journal* (Washington, D.C.), Oct. 1, 1830, p. 2.

<sup>82</sup> See note 6 above.



blow to his ego. At any rate, he was not heard from again until mid-1832 when he inserted cards in the Milledgeville papers stating that he had

removed to the residence of Elisha Reid, in Putnam county, where any branch of his business will be executed in superior workmanship. Priced work for cash only need be called for. COCK HEELS made to any model and warranted temper.<sup>83</sup>

In the same issues, Elisha Reid announced that he had

recommenced the cotton gin-making, and hopes from his experience and the assistance of (the well known workman) TEMPLETON REID, to be able to offer to the planters an inducement to try his work, even at higher rates than usual.

Thus began the first business association between the brothers and a return to cotton gin manufacturing for both. It marked for Templeton an abrupt alteration in his career which may very well have resulted from the events of 1830. The change from watchmaker, jeweler and die sinker to cotton gin maker is not unlike a model builder's suddenly deciding to manufacture wagons; in 1832 the ability to engrave fine detail and machine to close tolerances on very small parts was not a prerequisite for cotton gin making. Reid's self-confidence, however, did not suffer with the change in work precision; rather, it became even greater. In fact, it took on a certain degree of arrogance when he advertised from Columbus, to which city he had moved, apparently seeking new opportunities as cotton farming spread westward, that

from his long experience in that line, his well known abilities as a workman, his best preparation and attention in every department of the work, and from his promise to the public to turn out work superior in every respect to any done in the Union, he expects to be patronized.<sup>84</sup>

<sup>83</sup> *Southern Recorder* (Milledgeville), May 3, 1832, p. 3; *Georgia Journal*, May 10, 1832, p. 4. The move was apparently made several months earlier, however, since Reid was listed in the 1832 Putnam Co. Tax Digest, 389th district, as a defaulter; taxes were due Feb. 1. In 1833 his tax was paid by Elisha Reid as Agent in the 389th district. "Cock heels" are a part of the lock mechanism of firearms.

<sup>84</sup> *The Enquirer* (Columbus, Ga.), Apr. 22, 1836, p. 3.

However, his self-esteem was not entirely without foundation; he stated in the same advertisement that he was prepared to supply from the Reid "Cotton Gin Manufactory" which was located in a large wooden building on the southwest corner<sup>85</sup> of St. Clair and Oglethorpe Streets (present day 11th Street and First Avenue) "Lathe Irons with centres complete" and "Reid's late invented self-regulating Circuling and Tooth Cutting Engine."

Templeton's move to Columbus marked a temporary discontinuance of his and Elisha's association in the gin making business. However, Elisha, apparently also enticed by the promise of new opportunities in virgin lands to the west, sold all his holdings in Putnam County in the Spring of 1836<sup>86</sup> and moved to Columbus where he took out a dray license in October<sup>87</sup> and, in 1837, announced the opening of his dry goods, grocery and hardware store on Broad Street.<sup>88</sup> Although he advertised the business reasonably aggressively,<sup>89</sup> by mid-1839 he found himself in deep financial trouble<sup>90</sup> and the business apparently failed.<sup>91</sup> In early 1840 he was again involved in cotton gin making with Templeton,<sup>92</sup> although probably only partially at this time, as may be inferred from the brothers' single public expression of their political views that autumn. In keeping with the boisterous nature of the 1840 presidential campaign, the mechanics of the City of Columbus held meetings in September at which resolutions were drawn up supporting Harrison

<sup>85</sup> *Georgia Argus* (Columbus), July 11, 1839, p. 4 and *The Enquirer* (Columbus), July 17, 1839, p. 3. The former lists the lot as No. 165. Compare *The Enquirer* (Columbus), Feb. 28, 1844, p. 3 and Dec. 4, 1844, p. 3.

<sup>86</sup> Putnam Co. Deed Book O, pp. 393, 394.

<sup>87</sup> Columbus, Ga. City Record Book, No. 1, p. 246; Columbus, Ga. City Treasurer's Account Book, 1832-1841, p. 129.

<sup>88</sup> *The Enquirer* (Columbus), Sept. 14, 1837, p. 3.

<sup>89</sup> *The Enquirer* (Columbus), Feb. 1, 1838, p. 1 and May 3, 1838, p. 1.

<sup>90</sup> Muscogee Co. Superior Court Record of Writs, Vol. 1 (1840), pp. 216-217, 611, 616-618.

<sup>91</sup> Muscogee Co. Superior Court Minutes, 1841, Book A, pp. 408-412 records three suits returned to the April term of 1841—no property. Also Muscogee Co. Inferior Court Dockets, July term, 1841, p. 18, case no. 83 and January term, 1844, p. 184, case no. 21 again record "no property."

<sup>92</sup> Letterbooks of the Department of State, Republic of Texas (Domestic Correspondence), Vol. 2, p. 324, T. Reid to N. Amory re cotton gin patent.

and Tyler and opposing Van Buren in the coming election;<sup>93</sup> Templeton signed as "Gin Maker" and Elisha as "Silversmith." Their association became quite close after 1841 and their business was referred to in advertisements, notices and news articles as T. and E. Reid until the end of 1846 when the final severance apparently took place.

Templeton must have decided that the future held great promise for cotton gin manufacturers and his initial advertisement reflects his optimism; it ran every week in *The Enquirer* from Apr. 22, 1836 through Nov. 3 (by far the longest string he ever purchased) and was reprinted in newspapers in Milledgeville, Macon, Augusta, Savannah and Darien, Ga., Florida, Mobile, Montgomery and Huntsville, Ala., New Orleans, La. and Natchez, Miss.<sup>94</sup> After that he reverted to his usual number and placed advertisements for two weeks in 1837 and in 1838.<sup>95</sup> In 1839, however, he began to think about another west-ward move and, perhaps with an eye to financing it and paying off the debt liability incurred by the successful suit against him by R. H. L. Buchannon for non-payment of a note made in 1833 in Milledgeville,<sup>96</sup> he offered in the *Columbus Sentinel and Herald* in February a challenge to "any rifleman to meet me on a match to be shot in Columbus . . . , for \$1000 aside, (play or pay). . . ;"<sup>97</sup> unfortunately the outcome of the offer was not recorded. He must, however, have enjoyed a considerable reputation as gunsmith and rifleman since, 12 years after he had moved away from Milledgeville, Matt C. Butts advertised in the Milledgeville *Federal Union*:

Gunsmithing—The subscriber carries on the above business in all its branches, at the old stand, formerly occupied by Templeton Reed (sic), one door above the Masonic Hall.<sup>98</sup>

<sup>93</sup> *The Enquirer* (Columbus), Oct. 7, 1840, p. 3.

<sup>94</sup> He was correct in this surmise, since ginning was carried out all over the South on individual plantations in relatively small gin houses until the end of the nineteenth century, when today's centralized, cooperative ginning establishments appeared. Compare Charles A. Bennett, *Saw and Toothed Cotton Ginning Developments*. Dallas, Tex., 1960.

<sup>95</sup> *The Enquirer* (Columbus), Nov. 23, 1837, p. 3 and Sept. 27, 1838, p. 3.

<sup>96</sup> Muscogee Co. Superior Court Record of Writs, 1839, p. 342, case no. 692.

<sup>97</sup> *Columbus (Ga.) Sentinel and Herald*, Feb. 14, 1839, p. 2.

<sup>98</sup> *Federal Union* (Milledgeville), Apr. 23, 1844, p. 3.

and the shooting match, if held, may very well have been successful for him. At any rate, sometime between February and May 1839, he travelled to Austin, Texas, applied for and was granted a patent for a new method of making the brush in the cotton gin.<sup>99</sup> This was the fourth of the first six patents to be granted by the Republic of Texas and in order to obtain it Reid had to apply in person, pay a fee of \$30 and declare legally his intention of becoming a citizen of the Republic. In addition to these procedural requirements, of his own volition he made and deposited with the Patent Commissioner a model of his improved cotton gin. In an effort to establish his business in Texas Reid advertised in the *Houston National Intelligencer* that those planters wanting his Patent Gin could apply by letter to him in Columbus, Ga. or to his agent John Cornick & Co. in Houston.<sup>100</sup> The agent was authorized to grant licenses to make or use the Patent Gins in Texas until January 1840 and a reference list of names was given.

His intention to become a citizen of the Republic seems to have been altered somewhat in the winter of 1839–40 by the onset of rheumatism and a broken thigh (discussed in the letter cited in note 92 above), but he evidently still planned such a move when he published a prospectus for a book to be entitled "Cotton Gin Maker and Giner's Guide." Judging by his choice of words he must have considered himself the final authority on the subject of cotton ginning and gin making. The advertisement, quoted here in its entirety, affords an insight into the man's personality:

PROSPECTUS of the COTTON GIN MAKER AND GINER'S GUIDE, by Templeton Reid. The importance of properly preparing the Staple of any country or section is well known, but to no country or section is it of such importance as those that grow and produce the Cotton as their only staple. Therefore, under this and other considerations, I propose to publish

<sup>99</sup> Letterbooks of the Department of State, Republic of Texas (Domestic Correspondence), Vol. 1, p. 141, N. Amory to D. Burnet, Report of the Patent Bureau. For a comprehensive history of the subject, see Andrew Forest Muir, "Patents and Copyrights in the Republic of Texas," *Journal of Southern History* 12 (1946), p. 204.

<sup>100</sup> *National Intelligencer* (Houston, Tex.), June 20, 1839, p. 3 and later editions. Dateline was May 30.

by subscription my system and practice in Cotton Gin making and Ginery.

With the advantage of many years' experience, the sacrifice of much time and labor, and believing that I have brought it nearer to perfection than any other person, I submit it to the public in a concise and correct manner, with my late practice and many improvements, besides the valuable one of the application of the Friction Wheels, and new mode of making the Brush, (which I have patented in the Republic of Texas,) and the Brake or Agitator, my last improvement, which much increases the speed in Gining and improves the Cotton. (It is well represented in the Plates and explained in the work.) The work to contain *Ten* finely engraved Plates, illustrative of the system; of the Gin complete, plans, elevations, sections, and figures in detail, with reference and description of every part. Also, Plates of plan and elevation of Gin-House, gear, position of the Gin, &c. calculations of gear in speeding the Gin, with particular description, explanation and directions to the Planter in constructing his Gin-House and Gear, and general management of the Gin, Cotton, &c. With the rules and explanations given in the proposed Work, any good workman may execute the whole plan well, and the Planter be enabled to judge for himself in constructing his House, Gear, &c., and in selecting a Gin that is rightly made in every respect, and of good materials; therefore being a great saving or gain to him, first, in cleaning his crop in half the time usually required; and in picking and moteing his cotton well, so as to command the higher price in market; in the durability of his Gin, which if made by the directions given will last to pick a thousand bags of cotton, (this would require three or four common made Gins to do the same,) And further, there is no risk or danger of burning the House, Cotton, &c, by taking fire from the Gin on the new friction wheel plan, though you were to give it double the motion Gins running on boxing would bear. Nothing will be set down in the proposed Work but positive facts, being the result (all prejudices aside) of fair and repeated experiments, (a safe guide to mechanical knowledge and skill.)

If I was going to continue the Cotton Gin making business in this country, I should not trouble the public with this Prospectus for I would much rather work for money than write for it, as in the first case, I would do it strict justice,—in the latter, I must ask allowance for its defects, and liberal patronage for its support.

TERMS — Ten Dollars, payable on delivery. Non-subscribers Twelve Dollars.

N.B. This Prospectus will be forwarded to individuals, and the town and county Post Offices in the Cotton-growing sections of this and other States to obtain subscribers to the Work.

Editors of News Papers friendly to the advancement of the great Staple, the Cotton of the South and South-West, will please give the above an insertion.

sept 16

TEMPLETON REID.<sup>101</sup>

Although it received only this one insertion in the *Georgia Argus*, the prospectus, with some improvements in grammar, was published in all editions of the *Columbus Sentinel and Herald* from Oct. 1, 1840<sup>102</sup> through Mar. 11, 1841 and was reproduced as well in *The Enquirer* from Oct. 7<sup>103</sup> through Nov. 18. In addition, there appeared in the latter two papers on Jan. 13, 1841 notices<sup>104</sup> requesting any holders of the prospectus who wished to subscribe to send their payments to Columbus and the notices were repeated throughout the month. It is doubtful, however, that the book was ever published. Had its publication been successful, the book would without doubt have constituted a landmark in the history of cotton gin development in the United States, since it would have been the earliest work of its kind.

After the abandonment of plans to move to Texas—which may very well have been influenced by the apparent lack of interest in the book—Reid seems to have settled down in earnest to the business of gin making.

<sup>101</sup> *Georgia Argus*, Sept. 16, 1840, p. 3.

<sup>102</sup> *Columbus (Ga.) Sentinel and Herald*, Oct. 1, 1840, p. 1.

<sup>103</sup> *The Enquirer* (Columbus), Oct. 7, 1840, p. 1.

<sup>104</sup> *Columbus (Ga.) Sentinel and Herald*, Jan. 13, 1841, p. 3; *The Enquirer* (Columbus), Jan. 13, 1841, p. 3.

In 1842 the advertisements began to mention E. Reid and they were much more forthright—due perhaps to the increasing number of competitive gin makers.<sup>105</sup> In 1842 *The Enquirer* carried a line drawing of the gin and the features of the gins and the ability of the maker were extolled in glowing terms:

REID'S superior COTTON GIN may be had for the present crop. The workmanship entirely by T. & E. Reid, the inventors of the antifriction Gins: new plan of brush, the agitator to the hopper, &c. The Gins of this season shall be superior in every respect to any yet offered to the planters.

TEMPLETON REID.<sup>106</sup>

In 1843 Reid inserted a card in *The Enquirer* advertising himself as a "Cotton Gin Maker, also Silver, White and Gunsmith"<sup>107</sup> and in 1844 Elisha placed an advertisement for

Reid's Late Patent Boxing Cotton Gins, manufactured by T. & E. Reid, Columbus, Ga. Superior in every respect to any ever offered to the planter. The attention of Planters is particularly invited to this new Patent Boxing, which is constructed of a Cast Iron Box as a reservoir of water surrounding the Oil Box and Journal, which keeps them perfectly cool with any degree of motion.<sup>108</sup>

The same advertisement offered a second set of working parts made to be interchangeable with the original so that the owner could have, in effect, a second gin at greatly reduced cost.<sup>109</sup> Similar advertisements

<sup>105</sup> See, for example, *The Enquirer* (Columbus), Oct. 27, 1841, p. 1; Mar. 22, 1843, p. 3; July 12, 1843, p. 4; June 10, 1846, p. 3; Feb. 16, 1847, p. 3 and Feb. 23, 1847, p. 4.

<sup>106</sup> *The Enquirer* (Columbus), Aug. 17, 1842, p. 3.

<sup>107</sup> *The Enquirer* (Columbus), July 19, 1843, p. 3.

<sup>108</sup> *The Enquirer* (Columbus), June 19, 1844, p. 3.

<sup>109</sup> It should be noted that Elisha signed the advertisement as "Elisha Reid, Patentee" and offered to sell the patented boxing "for Cotton Gins, or other machinery, for twenty five dollars per unit, for fourteen years from the date of patent." This suggests that the patent was obtained in the Republic of Texas, which granted rights for the term of 14 years but which failed to keep any records relating to patents after 1841 (see Muir, *JSH* 1946, p. 218).

appeared in 1845<sup>110</sup> but by the summer of 1846 what was to be the final rift between the brothers began to develop. It was reflected in the advertisement placed by Templeton in which there is no mention made of Elisha and in which all credit is secured to the advertiser. In it Reid offered in addition to the gins:

LATHES of any description fitted up. Gin Saw Tothing Engines, superior to anything yet used. Boring Machines (for Iron), Cutler's (Emery) Wheels; Morticeing Machines very superior.

TEMPLETON REID

\*All the above Machines are of my late (and peculiar) construction and best workmanship. All of which specimens may be seen in the Shop.

Columbus, July 15, 1846

T.R.<sup>111</sup>

The precise reasons for the final dissolution of the T. & E. Reid business association are not clear but it is quite likely that Templeton's increasingly frequent legal troubles with his fellow citizens and the nature of the personality therein reflected played an important if not dominant role. In the summer of 1839 he was arrested, served with a summons and released on bail and, in October, judgment was rendered against him for the value of a promissory note with interest and costs.<sup>112</sup> In 1840 both he and Elisha were the defendants in a "levy and claim" suit which was dismissed.<sup>113</sup> In 1841 he was again the defendant in a suit for indebtedness brought by R. H. L. Buchannon and was found guilty.<sup>114</sup> In early 1846 he signed a promissory note to John B. Peabody and was served with a summons a week later; in November the jury found against him.<sup>115</sup> In November 1847 a legal notice appeared announcing the sale in December at the Market House in Columbus of two cotton gins levied on as the property of Templeton Reid to satisfy two *fieri facias* writs issued from the Superior

<sup>110</sup> *The Enquirer* (Columbus), Aug. 13, 1845, p. 3. The same advertisement appeared in *The Columbus (Ga.) Times*, Aug. 13, 1845, p. 3.

<sup>111</sup> *The Enquirer* (Columbus), July 15, 1846, p. 3.

<sup>112</sup> Muscogee Co. Superior Court Record of Writs, 1840, pp. 320-321, case no. 36.

<sup>113</sup> Muscogee Co. Superior Court Docket, October term, 1840, p. 1.

<sup>114</sup> Muscogee Co. Superior Court Minutes, 1841, Book A, p. 334.

<sup>115</sup> Muscogee Co. Superior Court Record of Writs, 1845-1846, p. 332, case no. 44.



and Inferior Courts of Muscogee County in favor of R. H. L. Buchannon and William M. Frazier.<sup>116</sup> It is quite likely that the indebtedness which led to these judgements was contracted in early 1847 or before. Further insight into Templeton's personality as contrasted to Elisha's is to be found in their respective records of tax payments during the Columbus years. Only once, in 1842, did Templeton pay his poll tax to the city of Columbus<sup>117</sup> but Elisha paid each year through 1846 and, in addition, paid county taxes in 1838 and 1845.<sup>118</sup>

The developing estrangement between the two brothers was probably not public knowledge in the autumn of 1846 when the business suffered a serious setback; on Oct. 9, 1846 a great fire swept over much of Columbus and the "shop on the corner . . ., occupied by Messrs. T. & E. Reid, gin makers, was consumed, with much valuable lumber, . . ."<sup>119</sup> *The Columbus Times* put T. & E. Reid's loss at \$1000<sup>120</sup> of which \$200 was recovered from a fund raised by the Fire Committee.<sup>121</sup> In the October 14th issue of *The Enquirer* there appeared a card:

TEMPLETON REID tenders his thanks to the citizens of Columbus, and others, for their extraordinary exertions in saving his valuable Tools, Machinery, &c. from the late destructive fire.<sup>122</sup>

and in the edition of the 28th another:

#### TO COTTON PLANTERS

TEMPLETON REID is in Shop again, since the fire, and has a few of his superior Cotton Gins for sale, at prices to suit his condition, looking across to his old corner, and lately smoking.<sup>123</sup>

<sup>116</sup> *The Columbus (Ga.) Times*, Nov. 9, 1847, p. 4.

<sup>117</sup> Columbus, Ga. City Tax Return, 1842.

<sup>118</sup> Columbus, Ga. City Tax Return, 1842-1846, 1847 defaulter (no listing found for 1840, 1841). Muscogee Co. Tax Returns, 1839, 1845 (1847, the only other extant record, has no listing for either brother).

<sup>119</sup> *Muscogee Democrat* (Columbus), *Extra*, Oct. 9, 1846 and *The Enquirer* (Columbus), Oct. 14, 1846, p. 2; see also *Southern Recorder* (Milledgeville), Oct. 13, 1846, p. 3, reprinting from an *Extra* of *The Enquirer* (date of *Extra* not given).

<sup>120</sup> *The Columbus (Ga.) Times*, Oct. 14, 1846, p. 2.

<sup>121</sup> *The Columbus (Ga.) Times*, Nov. 24, 1846, p. 3.

<sup>122</sup> *The Enquirer* (Columbus), Oct. 14, 1846, p. 3.

<sup>123</sup> *The Enquirer* (Columbus), Oct. 28, 1846, p. 3.

In neither of these cards is Elisha's name mentioned; this estrangement from Templeton and the loss of all his personal property in the great fire must have been an extremely serious blow to him. In an apparent effort to reestablish himself Elisha filed in December as a candidate for Muscogee County Tax Collector<sup>124</sup> but he was not victorious and, in the final break with Templeton, he sold the rights to his patent for the watercooled gearbox to Samuel Griswold, a competitive gin manufacturer, who quickly advertised the fact in the Macon and Columbus newspapers.<sup>125</sup> Except for the U. S. Census for Muscogee County, 1850, where he was listed as a mechanic, Elisha disappeared from the public record after this; he died in October 1850.<sup>126</sup>

On the other hand, Templeton's initiative and inventive abilities were certainly not burned out by the fire and by the end of the year he had produced a new type of gin which was designed to pick long staple cottons such as Mastodon and Sea Island. It was the subject of a news report which expounded the machine's virtues and, perhaps inadvertently, provided us with a fleeting glimpse of the inventor's countenance:

REID'S PATENT LONG-STAPLE COTTON GIN. We had the pleasure, a few days since, of examining a splendid piece of machinery, lately finished by our townsman, Mr. T. Reid, who has succeeded in the manufacture of a Gin for picking the Mastodon and other kinds of long-staple Cotton . . . It is the intention of Mr. Reid to patent the Improvement and manufacture his long-staple gins with an extra set of saws and ribs of his celebrated gins now used in picking the short staple—so that they can be shifted alternately into the same frame, making it cheaper to the grower of mixed cotton crops than would be two separate gins . . . Success to the man with a BEARD on, and to his double gins!<sup>127</sup>

<sup>124</sup> *The Enquirer* (Columbus), Dec. 8, 1846, p. 3.

<sup>125</sup> *Georgia Messenger*, Mar. 25, 1847, p. 3. See also *The Enquirer* (Columbus), Apr. 7, 1847, p. 3 and *The Columbus (Ga.) Times*, July 6, 1847, p. 4. Griswold was still advertising his acquisition of rights to this patent in 1850 and 1851 and it can be inferred that the feature was a valuable one in the development of the cotton gin.

<sup>126</sup> Private communication from Edge R. Reid, Columbus, Ga.

<sup>127</sup> *The Enquirer* (Columbus), Dec. 29, 1846, p. 2.

In the middle of 1847 Reid placed an advertisement in *The Enquirer*<sup>128</sup> for his short and long staple gins but he never patented the long staple construction<sup>129</sup> and, strangely enough, nothing further is heard directly from him with regard to the cotton gin business until early 1851 when he placed his last advertisement for the sale of his gins.<sup>130</sup> There can be little doubt, however, that he continued in this business during these years since in late 1847, as noted, he was the defendant in two court actions involving cotton gins and the 1850 U. S. Census listed him as a machinist. In addition, earlier in 1850, he found himself the recipient of a distress warrant levied on "all the tools and material in the workshop of Templeton Reid" in favor of Seaborn Jones.<sup>131</sup> Furthermore, his Gin shop was mentioned in a report to the City Council by the Second Ward health officer in September 1848<sup>132</sup> and in May 1849 his name appeared on the monthly list of unclaimed mail at the Columbus Post Office but it was not on the June list, which would indicate that he had picked up the letter sometime in May.<sup>133</sup>

Although *The Enquirer's* advertisement in January 1851 was Templeton's last, he continued to evince vigorous interest in the cotton gin business and while his competitors were entering local industrial fairs and winning prizes he strove for greater fame. In the March 25 edition of *The Columbus Times* the following report was printed:

THE WORLD'S FAIR — We had the pleasure yesterday, of examining some specimens of mechanical skill, manufactured in this city by Mr. Templeton Reid, for exhibition at the World's Fair in London. Among these is a model cotton gin, a miniature box of mahogany, of elaborate and elegant finish. It works finely, and produces the cleanest and most beautiful cotton we have ever seen. A sample of it may be seen at our office,

<sup>128</sup> *The Enquirer* (Columbus), June 8, 1847, p. 3.

<sup>129</sup> The Annual Index of Inventors of the U. S. Dept. of Commerce Patent Office for 1790–1873 shows no listing for either Templeton or Elisha Reid.

<sup>130</sup> *The Enquirer* (Columbus), Jan. 14, 1851, p. 4.

<sup>131</sup> *The Enquirer* (Columbus), Apr. 2, 1850, p. 3. Compare *The Columbus* (Ga.) *Times*, Apr. 9, 1850, p. 4.

<sup>132</sup> *The Enquirer* (Columbus), Oct. 3, 1848, p. 3.

<sup>133</sup> *The Enquirer* (Columbus), May 8, 1849, p. 3.

or the machine itself at Mr. Reid's shop, until the 1st of next month.

Mr. Reid also showed us some specimens of his white and silver smith work. To our inexperienced eye, the mechanism is unexceptionable. The polish and temper of his steel, and the beautiful exactness of his inlaid silver, it appears to us, cannot be excelled. We are glad that the skill of Georgia will be so well represented.

Mr. Reid has a high reputation as a mechanic. His genius in this line is almost universal. He can make anything, we believe, that can be wrought out of wood or metal from a pair of Cock's gaffs (with a temper, as he says that will beat Damascus) to a rifle or cotton gin. He has 45 years of experience, during which time, no man has labored with so much assiduity and enthusiasm.

We wish the old gentleman a pleasant voyage to and from the "Crystal Palace" and a high prize for the specimens of his art.<sup>134</sup>

In spite of the great effort which must have gone into the preparation of his model cotton gin and other exhibits Reid was not able to go to the Fair in London; his name was not on the Official List of Exhibitors.<sup>135</sup> The events which, in quick succession, followed the report cited above give some insight into a possible reason for this failure and for the paucity of information about his activities between 1847 and 1850.

On August 5, 1851 his obituary was printed in *The Columbus Times*:

FOUND DEAD — We are pained to state that Mr. Templeton Reed (sic), one of the oldest citizens of Columbus, and a man far advanced in years, was found dead this morning near the river, in the lower part of the city. There is a spring near the spot, and it is surmised that in attempting to reach it, he fell down the bank which is high and steep and being too much hurt to seek relief, he expired before morning.

<sup>134</sup> *The Columbus (Ga.) Times*, Mar. 25, 1851, p. 1.

<sup>135</sup> *Official Descriptive and Illustrated Catalogue of the Great Exhibition of the Works of Industry of All Nations, 1851, by Authority of the Royal Commission* (London, 1851), Vol. 3, pp. 1431-1469, List of Exhibitors for the United States of America.

Mr. Reed (sic) was in many respects an extraordinary man. His genius as a mechanic was of the first order. His skill was equal to his inventive powers—He was a capital artificer in wood, and in the metals. His business was that of a gin maker, and his machines have long engaged a high celebrity. His industry was as untiring as his genius was fine. Yet, like so many bright spirits who have gone before him, he failed to accumulate much of this world's goods. Mr. Reed (sic) has left behind him many friends, who valued his excellent and kindly qualities of heart, and will remember him as one of those good but eccentric men, who was his own worst enemy.<sup>136</sup>

On August 12 the following legal notice appeared simultaneously in *The Columbus Times* and *The Enquirer*:

MORTGAGE SALE. — Will be sold in the city of Columbus at the Market House, on the first Tuesday in October next, the following property, to wit: one complete Lathe, two tooothing machines, one iron boring machine, one circular saw machine, one rimming machine, one rifle, one double barrel shot gun, two silver faro dealing boxes, a lot of cock gaffs and a fine lot of tools of various kinks (sic) and all the articles in the house lately occupied by Templeton Reid, levied on to satisfy a mortgage fi. fa. issued from the Inferior Court of Muscogee county in favor of Seaborn Jones against said Templeton Reid, said property pointed out in said fi. fa.

Aug. 6, 1851

F. A. JEPSON, sheriff<sup>137</sup>

What was it that caused Seaborn Jones to obtain such a document against Reid? Without the original Court records one can only guess, but Templeton Reid's personality was such that it is quite probable that he devoted more and more time in his later years to gambling, finding himself periodically subjected to debt recovery suits, then to seizure of some of his manufactured property and finally a distress warrant against his industrial equipment and tools; these writs culminated in the posthumous mortgage against his entire property to repay

<sup>136</sup> *The Columbus (Ga.) Times*, Aug. 5, 1851, p. 2.

<sup>137</sup> *The Columbus (Ga.) Times*, Aug. 12, 1851, p. 3; *The Enquirer* (Columbus), Aug. 12, 1851, p. 3.

debts to Seaborn Jones. It is easy to imagine that his plan to exhibit at the 1851 World's Fair in London anticipated the winning of a prize with which to rid himself of some or all of Jones' annoying tactics; he may even have borrowed additional money from Jones to finance the trip to England. If he did and then gambled it away, Jones would have found it easy to attach all of Reid's possessions to recover the increased debt; he wasted no time after Reid's death in securing and executing his judgment.

Regardless of what the precise reason may have been for Jones' action against Templeton Reid, its effect was to make him a pauper at the time of his death and one cannot help feeling a certain measure of sorrow that a man of Reid's ability and obvious genius should come to so ignominious an end. The Sexton's report of his death<sup>138</sup> means that he was buried in Linwood Cemetery on the hill on the north side of Columbus from whence his restless spirit could look out over the city and across the Chattahoochee to the Alabama cotton lands. There is no marker on his grave to show precisely where his bones lie but, if one walks up the gentle slope to the old part of the cemetery and stands quietly under the large pine, one can almost hear the creak of his old coining press, the whir of his lathe as he turns a bearing or the old man's voice as he extolls to an interested planter the advantages of Reid's Patent Long Staple Cotton Gins.

#### THE "CALIFORNIA GOLD" COINS OF 1849

With the exception of the two Templeton Reid 1849 California Gold coins themselves, there is nothing to suggest that Reid ever went to California and there is a great deal of evidence which indicates that he was in Columbus in 1849 and 1850. As detailed above, he established his cotton gin manufacturing business in Columbus in 1836 and was still engaged in it in 1850 and 1851 up to the time of his death. As of May 1, 1849 he had an unclaimed letter in Columbus but by June 1 it had been delivered indicating (but not proving) that he was in the city during May 1849. At some time prior to April 1850 he contracted a debt to Seaborn Jones of Columbus and, for some reason (perhaps a

<sup>138</sup> Minutes of the Council of the City of Columbus, Ga. for Oct. 9, 1851, incorporating the report of deaths for July, Aug. and Sept. 1851 by J. Terry, Sexton: "August 2, Templeton Read (sic), age 65, disease unknown."

weakness for gambling), he found himself unable to repay it. Accordingly, Jones obtained a distress warrant covering "all the tools and material in the work shop of Templeton Reid" and the resulting Sheriff's sale notice appeared in *The Enquirer* on Apr. 2, 1850. It has not been possible to determine exactly when these events began but it is likely that Jones exhausted all the normal possibilities for collection of his debt before taking recourse to an action which would put Reid out of business. It seems not unreasonable that several months, perhaps even a year, of effort preceeded the court action. Had Reid departed for California during this time, Jones would undoubtedly have moved swiftly to secure satisfaction. We know too that in November 1850 Reid informed the Census taker that he was a resident of Columbus as of June 1.

In 1849 Reid would have had to choose one of two alternate routes to California. The first of these was the overland route to St. Louis and Independence and thence west through Santa Fe by wagon train. The time required was two to three months at best and the trip was arduous in the extreme.<sup>139</sup> The second route involved taking a steamship from New Orleans to Chagres, then going up the Chagres River by canoe to Cruces or Gorgona, and traversing the Isthmus of Darien (present day Panama) on mule or horseback to Panama City to catch a Pacific steamer to San Francisco.<sup>140</sup> The time required for this trip was approximately a month if one was fortunate enough to be able to book all passages promptly<sup>141</sup>. At the height of the rush in 1849 one could remain stranded at Panama alone for a month or more.<sup>142</sup> Although this route was not nearly so difficult as the overland route by wagon train, it would undoubtedly have been strenuous in the extreme, if not totally out of the question, for a man of Reid's age (60-63) with rheumatism and the after-effects of a broken thigh.

If Reid had gone to California in 1849 or 1850, he would have had either to close his cotton gin business completely or to leave it in Elisha's

<sup>139</sup> *The Enquirer* (Columbus), Oct. 30, 1849, p. 3. See also the editions of May 22, 1849, p. 3 and Apr. 10, 1849, p. 2.

<sup>140</sup> *The Enquirer* (Columbus), Dec. 26, 1848, p. 2 and Mar. 6, 1849, p. 2.

<sup>141</sup> *The Enquirer* (Columbus), Apr. 16, 1850, p. 2.

<sup>142</sup> *The Enquirer* (Columbus), Apr. 10, 1849, p. 2; see also the edition of July 2, 1850, p. 2 for a graphic description of conditions in Panama and the cost of tickets to California.

hands. Had he done the former, it is likely that Seaborn Jones would have seized all his industrial equipment. The latter too seems to have been out of the question since Templeton and Elisha had dissolved their business association sometime prior to April 1847 as indicated by the omission of Elisha's name from the advertisements placed in late 1846 and Elisha's sale of the rights to his patent covering the watercooled gearbox to a competitive gin maker in early 1847.

These events constitute convincing evidence, if not proof, that Templeton Reid did not go to California in 1849 or 1850. Thus it seems that the California gold coins must have been made in Columbus, Ga. Although the coins were not cut for assay, Eckfeldt and Dubois<sup>143</sup> stated that they appeared to be made from California gold without dilution so that Reid, if indeed he did make the coins, would have had to acquire samples of California metal from which to forge his planchets and strike the coins. Since there was a constant flow of the precious metal to eastern ports, including Mobile and New Orleans, in 1849-50,<sup>144</sup> it is not unlikely that some came to Columbus, perhaps in the hands of a returning fortune hunter. But why Reid would go to the trouble of engraving dies, forging planchets and setting up a coining press to make *two* coins cannot now be answered with any degree of confidence. His personality makes possible the suggestion of assuaging a long-smoldering wound dating back to the summer of 1830 by creating a mystery or even the intention to achieve another "first"-production of California gold coins before the "private minters" who he felt would soon be at work in the new gold region. Neither of these explanations has the benefit of even suggestive evidence and the question of how the coins got in a shipment of California gold to the U. S. mint still remains. The coins continue to be, at least for the present, one of the mysteries of American numismatics.

#### ACKNOWLEDGEMENT

The author wishes to express appreciation to those modern day Georgians without whose gracious help this work would not have been possible. At the head of the list stands Edge R. Reid of Columbus who, simply for the love of it, spent untold hours poring over the *Ledger-*

<sup>143</sup> See note 62 above.

<sup>144</sup> *The Enquirer* (Columbus), Dec. 11, 1849, p. 3 and May 14, 1850, p. 3, for example.



*Enquirer* (Columbus) micro-film files of its predecessor newspaper, *The Enquirer* for all the years through 1851 in search of Templeton and Elisha Reid in Columbus and provided the author with photocopies of all items found. In addition, He gave selflessly of his ideas and interpretations of the events of Templeton's Columbus years and many of his thoughts have been incorporated into the fabric of this story. He was a constant source of encouragement, enthusiasm and inspiration and, characteristically, refused to accept the author's invitation to coauthor the work.

Mrs. Madeline Anthony, former Curator of the Dahlonega Gold Museum, Lewis Richardson of Gainesville and Jackson Bennett of Athens opened their files to the author and unselfishly shared their knowledge and thoughts. Mrs. Anthony in particular provided inspiration and, through her long association with Georgia history and historians, invaluable personal contacts.

Virginia Michaelis of Athens carried out much of the tedious search work for Templeton's early years while Ruth Corry and Mrs. Leoda Sherry of the Georgia Department of Archives and History and Mrs. Pat Bryant of the Surveyor General Office in Atlanta were generous indeed with the resources, both human and material, at their command. Billy Townsend of the Georgia Historical Commission office in Atlanta provided introductory references and information which served as a basis for much of the research.

Special thanks must be extended also to D. S. Reid of Eatonton, who, like his brother, Edge, gave generously of his time and energy among the records and lands of Putnam Co. purely for the love of it.

The author's thanks are extended to all those workers at the Georgia Department of Archives and History, the Surveyor General Office, the Libraries in Athens and Milledgeville of the University of Georgia, Emory University Library, Decatur, Bradley Memorial Library, Columbus, the Texas State Library, Austin and the records offices in Putnam, Baldwin, Hancock, Greene, Marion and Muscogee Counties, Georgia, who opened their files and gave generously of their advice and assistance.

Last, but far from least, is the author's wife, Josephine, whose patience and assistance during the research phase and criticism during the preparation of the manuscript provided a contribution difficult to measure by ordinary means.

## A NEUTRON ACTIVATION ANALYSIS OF THE SILVER COINAGE OF ZAPATA, 1914-1915<sup>1</sup>

THEODORE V. BUTTREY

(PLATES XXX-XXXI)

ADON A. GORDUS

Three types of Mexican silver coins were in circulation in 1910, at the beginning of the revolutionary period:

- A. The *peso fuerte* with types of facing eagle/liberty cap and rays (*resplandor*).  
.9027 R, .0973 CU; 39 mm., 27.07 gm.
- B. The redesigned *peso fuerte* introduced in 1910, with types of facing eagle/liberty on horseback.  
.9027 R, .0973 CU; 39 mm., 27.07 gm.
- C. The 50c, 20c, and 10c of a subsidiary silver system introduced in 1905, with types of facing eagle/cap and rays within wreath.  
.800 R, .200 CU;    30 mm.,    12.5 gm. (50c);  
                             22 mm.,    5.0 gm. (20c);  
                             18 mm.,    2.5 gm. (10c).

The coinage of the large silver pesos fuertes was suspended in March, 1914; they were never struck again. The minor silver denominations, of lower alloy, were produced into September of the same year. Through the rest of 1914 and all of 1915 no silver was struck at México, the mint producing only the bronze 5c, 2c, and 1c. Not until November of 1916 was the coinage of silver resumed (and of gold, which had been suspended since 1910).<sup>2</sup>

As a consequence of the lack of coin, various authorities issued vast quantities of paper currency of irregular circulation and precarious value. Counterfeiting flourished, and even the genuine paper might

<sup>1</sup> A summary version of this paper has appeared in *The Hispanic American Historical Review*, Vol. 52 (Aug. 1972), pp. 456-462.

<sup>2</sup> For details see the *Memoria de la Dirección de la Casa de Moneda*, México, for the fiscal years 1913/1914 through 1916/1917.

be declared invalid overnight for political reasons. Some attempts were made to bring order from chaos by the production of coins locally, many of them imitating the Federal issues from México. These efforts were greatly complicated by the lack of proper assaying and minting facilities, and of sufficient supplies of metal. Such difficulties obtained everywhere and account for the great disparity among the various revolutionary coinages. The coins struck outside México in several areas of the Republic differ from the Federal, and from each other, in both alloy and weight. They exist in a confused variety of types, denominations and modules. Numismatists have arranged and described this material well enough, yet we often do not know all that it means—who issued it, where, under what circumstances.<sup>3</sup>

The silver coinage of Zapata presents such a problem. Zapata began in 1914 to provide \$1 and \$2 silver coins to the areas under his control. Both denominations were smaller, and contained less silver than the coins of the Republic, but their acceptance was encouraged by the announced presence of an amount of gold in each. The issues of the \$2 piece exist in five major varieties:

1. *Obv.*: Facing eagle on *nopal*; above, REPUBLICA MEXICANA; below, DOS PESOS . G<sup>RO</sup> (*Guerrero*). 1914.  
*Rev.*: Sun and rays over mountains, of which the central peak is a smoking volcano; around, "REFORMA, LIBERTAD, JUSTICIA Y LEY"; above, ORO: 0,595.  
 (9 die pairs: groups L-S 12-PLATE XXX, 12a, 12b, 12c, 12d, 12e, 12f, 12g, 12h)<sup>4</sup>
2. As 1 but 1915.  
 (1 die pair: group 13)
3. As 1 but 1915, and on rev. below, C<sup>O</sup> M<sup>O</sup> (*Campo Morado*).  
 (2 die pairs: groups 33, 34-PLATE XXX)

<sup>3</sup> The major works are, Howland Wood, *The Coinage of the Mexican Revolutionists*,<sup>2</sup> ANSNM 38 (New York, 1928); J. Sánchez Garza, *Historical Notes on Coins of the Mexican Revolution, 1913-1917* (México, 1932); and most recently, Carlos Gaytán, *La Revolución mexicana y sus monedas* (México, 1969).

<sup>4</sup> The groups correspond to the varieties in Elwin C. Leslie & Erma C. Stevens, *The Coinage of the Mexican Revolutionist Zapata* ([Cleveland], 1968). The two groups in brackets were not analysed in this study.

4. As 1 but 1915, and on rev. below, **SURIANA**.  
(1 die pair: group 38-PLATE XXX)
5. *Obv.*: Facing eagle on *nopal*; above, **REPUBLICA MEXICANA**.  
*Rev.*: Liberty cap on rays; below, **DOS PESOS. C . M . GRO . 1915**.  
(1 die pair: group 35-PLATE XXX)

The Zapatista \$1 issues are equally varied:

1. *Obv.*: Facing eagle on *nopal*; above, **REPUBLICA MEXICANA**;  
below, **UN PESO**.  
*Rev.*: Liberty cap and rays within wreath; around, **"REFORMA,  
LIBERTAD, JUSTICIA Y LEY"**; above, **GRO. / ORO: 0,300**;  
below, **1914**.  
(8 die pairs: groups 9-PLATE XXXI, 9a, 9b, 9c, [9d], 9e, 9f, 10)
2. As 1 but 1915.  
(1 die pair: [group 11])
3. *Obv.*: Facing eagle on *nopal*; above, **REPUBLICA MEXICANA**;  
below, **1914 / UN PESO. CO MO GRO.**  
*Rev.*: Liberty cap and rays above wreath;<sup>5</sup> around, **REFORMA  
LIBERTAD JUSTICIA Y LEY**;  
below, **ORO: 0,300**.  
(1 die pair: group 31-PLATE XXXI)
4. As 1 but 1914, and on obv. below, **CAMPO MO.**  
(1 die pair: group 32-PLATE XXXI)
5. As 1 but 1915, and on reverse above, **TAXCO.GRO. / G. / ORO:  
0,300**.  
(4 die pairs: groups 45, 46, 47, 47a)

### ANALYSIS

One sees it said that Zapata attempted to issue silver coins as sound as those of the Republic. This at least seems to be the sense of Guerrero when he writes:

<sup>5</sup> In style imitative of the Federal minor silver reverse.

Se acuñaron entonces las monedas de plata con ley de oro, que se conocieron con el nombre de *pesos zapatistas*, cuyos valores de uno y dos pesos estuvieron en relación con la moneda nacional que circulaba.<sup>6</sup>

But one might have doubted the exchange value of the Zapatista *peso*, since it is considerably smaller than the Federal, weighing hardly more than the Federal 50c piece; and the \$2 pieces are similarly undersize. However the coins do bear an indication of added value in the legend which announces that each contains a small quantity of gold. At the time such a legend was unique. During the nineteenth century the fineness of the Mexican silver coinage was indicated by the legend on each piece; so on the peso fuerte through 1909. The gold coins as well had borne an indication of fineness up to 1905. But the peculiarity of the Zapatista coins lay in the fact that never before had a *silver* coin been marked to show its *gold* content, .300 grams and .595 in the \$ 1 and \$ 2 respectively.<sup>7</sup>

In 1956 Bernardo Eguía Lis undertook a chemical analysis of two examples of each of the Zapatista \$ 1 and \$ 2 denominations.<sup>8</sup> He proved that the legend—on the \$ 1, ORO: 0,300 —had to refer to the net gold content per piece in grams, not (as one might have supposed by the analogy of the legends of the Federal coins) to a 300/1000 gold fineness. But given this, his results were somewhat disconcerting, in that the net gold content of his examples was below the alleged standard in every case.

<sup>6</sup> Gildardo Magaña & Carlos Pérez Guerrero, *Emiliano Zapata y el agrarismo en México*, Vol. 4 (México, 1952), p. 21. The good quality of the coins is variously alleged, e.g. by Baltasar Dromundo, *Emiliano Zapata* (México, 1934), p. 87: “. . . los zapatistas acuñarían monedas de valor adquisitivo no superado más tarde por los carrancistas con sus ‘cartones’ y billetes ‘infalsificables’.”

<sup>7</sup> One other Mexican Revolutionary example is known. In 1915, perhaps in imitation of the Zapatista issues, certain coins of Oaxaca were struck with a legend indicating silver and gold content. For the intrinsic value of these coins see below, n. 17.

<sup>8</sup> Bernardo Eguía Lis, “Oro en monedas revolucionarias,” in *SocNumMéxico Bol* Jan.-Mar. 1956, pp. 4-6 (= July-Sept. 1962, pp. 143-145).

		<i>weight</i>	<i>% Ag</i>	<i>grams Ag</i>	<i>% Au</i>	<i>grams Au</i>
1914	L-S 33 "Campo Morado"					
	\$2	24.31	88.41	21.49	2.0	0.486
1915	L-S 12a					
	\$2	23.40	88.41	20.69	1.7	0.398
1914	L-S 9					
	\$1	14.27	89.02	12.70	1.8	0.257
1915	L-S 45 "Taxco"					
	\$1	12.96	82.54	10.70	.3	0.039

These figures, particularly the last, raise real questions about the quality of the Zapatista silver, and so about the sincerity of the whole endeavor.

It seemed useful to us therefore to check these results from a much larger sample. Eguía Lis' investigation could not have proceeded much farther owing to the essential difficulty of chemical analysis: to achieve the proper results the coin must be destroyed. Our analysis by neutron activation depends from an entirely different method which leaves the coin unharmed. It was possible to subject 129 pieces of Zapatista \$1 and \$2 to analysis, as well as some minor and comparable Federal coins.

The silver content of each coin was determined by two methods.<sup>9</sup> The entire coin was irradiated in the neutron howitzer, yielding an absolute percentage of silver content to an accuracy of ca.  $\pm 1.5$ – $2.0\%$ . In addition a streak sample was irradiated, with a result accurate to about  $\pm 1.0\%$ . In the latter case it was assumed that the coin was composed entirely of silver, copper and gold; in fact slight additional impurities are always present. From these two results a weighted silver result was calculated by averaging the howitzer result plus twice the streak result, to an accuracy of about  $\pm 1.3\%$ .

<sup>9</sup> For a description of the methods, cf. Jere L. Bachrach and Adon A. Gordus, "Studies on the Fineness of Silver Coins," *JESHO* 1968, pp. 298–317; and more fully, Adon A. Gordus, "Neutron Activation Analysis of Coins and Coin-Streaks," E. T. Hall and D. M. Metcalf, eds., *Methods of Chemical and Metallurgical Investigation of Ancient Coinage*, RNS Spec. Publ. 8 (London, 1972) pp. 127–148.

The percentages of copper and of gold were calculated from the streak sample by determination of the ratio of their activation to that of silver. The percentage of error in the copper reading is about  $\pm 0.1\%$ . The three percentages of gold, silver and copper do not necessarily total exactly 100%, because of the method used for averaging the silver data from the two sets of analyses. The total of readings for the entire population produces an average of 99.6% for the three major metals, which indicates that the presence of other elements can be ignored.<sup>10</sup>

The tables include analyses of all 14 varieties of \$2 and 13 of the 15 varieties of \$1 in this series. (Presumably L-S 9d, which is linked through the obverse die to 9c and Taxco 45-46, would reflect the alloy of its relatives. L-S 11, the anonymous \$1 of 1915, would likely resemble the metal of either Atlixac or Campo Morado.) The results of the individual analyses are grouped according to the die pair from which each coin was struck, and averages are taken for each group. Averages for the cast examples of group 9 are not significant.

Our results confirm those of Eguía Lis. His pesos of groups 9 and 45 were heavier than any of our examples, but the raw gold content was well within our range. The \$2 pieces compare to certain of ours, save for the rather low gold of his 12a. The general correlation of his results and ours is close, most importantly in indicating that these particular groups (but not necessarily others) regularly contain less gold than their legends claim. Among the \$2 issues, groups 12g and 12h are particularly low in gold, and Campo Morado group 33 and Suriana group 38 are even lower, while the \$1 coins of Taxco seem to have abandoned gold altogether.

## STANDARD

The analyses not only reveal the real gold content of these issues, but suggest the silver standard. One cannot say why silver content was not stated openly on the coins, but we now know what it probably was from the averages obtained above: 900 thousands fine, a creditable alloy. Note the general consistency of the silver content, which is owing

<sup>10</sup> One very base piece contains gold, silver and copper to a total of 94.34% (9b, test 1714). Presumably it is contaminated by other elements, particularly lead.

to the careful assaying practices of the Zapatistas, for it cannot have been achieved simply by melting down and restriking older coin. The Federal silver coin in circulation at the beginning of the revolutionary period consisted of pesos fuertes 902.7 thousands fine, and small change 800 thousands fine.<sup>11</sup> The Zapatista silver standard was new, and usually well-controlled. From this figure it is now possible to estimate fairly closely the theoretical weight and intrinsic value of the Zapatista silver coinage:

<sup>11</sup> The tolerance allowed at the México mint in the coinage of silver was 3/1000 in the peso fuerte, 902.7 thousands fine; and 4/1000 in the subsidiary silver, 800 thousands fine. The Zapatista silver coins fall slightly below the legal minimum of the peso fuerte, and far above the maximum of the subsidiary alloy. There is also too little gold in the Federal coins, which contain only infinitesimal quantities, as a residue. By way of example two pieces of the .800 fractional silver system were submitted to the same tests as the Zapatista silver, with the following results:

<i>denomination and date</i>	<i>grams</i>	<i>%R</i>	<i>%CU</i>	<i>%A</i>	<i>grams A</i>
20c 1910	4.89	80.0	20.0	.0142	.00069
50c 1912	12.48	78.4	21.6	.0020	.00025

The minimum percentage of gold content in any of the genuine Zapatista pieces was .27 (group 45, test 2348, Taxco), considerably under what is proper for the coin, yet far above the Federal. Since the gold content of the Taxco pesos is consistently trivial with respect to the content claimed, yet much higher than one finds in the Federal coins, the silver source in their case must have been not earlier coins but an ore with a small but steady proportion of gold which went unrecognized, or at least was not recovered owing to inefficient extraction procedures.

The copper too is a problem. In the peso fuerte the copper: silver ratio is 9.73: 90.27 by weight. Consequently in melting pesos fuertes to produce the 12 grams silver of the Zapatista peso one is left with an overage of copper in the alloy ( $9.73 \times 12 / 90.27 = 1.293$  gm.). To this one would have to add not only the .300 grams pure gold (not coin gold, alloyed with yet more copper in the ratio 90:10), but both another 2.82 grams pure gold per 100 grams of peso fuerte, and 22.7 grams pure silver, in order to arrive at the theoretical alloy of 90 % silver, 7.75% copper, 2.25 % gold. In other words both gold and silver Federal coins provide too much copper for the Zapatista alloy.

All this argues that Zapata's silver coins were not produced by the melting of the Federal. Porfirio Palacios says that some at least of the Zapatista metal came directly from the mines, *Emiliano Zapata* (México, 1960), p. 203, "La acuñación se hizo en Atlixac, Estado de Guerrero, aprovechando el metal de la mina de 'Campo Morado' de la misma jurisdicción."



1) The theoretical gold content of the Zapatista \$1 is .300 grams. The Federal gold coinage of 1905–1910, and all subsequent Mexican gold coinage to this day, has been struck on the basis of an imaginary gold peso, 900 thousands fine, weighing .8333 grams. Each gold coin contains .75 grams pure gold for each peso of denomination value: the 10 pesos, weighing 8.333 grams at 900 thousands fine, contains 7.5 grams pure gold, and so on. Therefore the announced gold content of the Zapatista peso, .300 grams pure, would have been worth precisely 40¢.

2) Assuming for the moment that, ideally, the Zapatista peso would contain another 60¢ in value, we must find it in the silver. There are two possibilities, one of which in fact does not make sense.

a) The peso fuerte weighs 27.073 grams, at a silver fineness of 902.7, for a pure silver content of 24.44 grams per peso. The value of 60¢ is therefore represented by 14.66 grams. The silver fineness of the Zapatista peso having been determined as 900 thousands, 14.66 grams would represent 90% of the weight of the coin. The total weight of the Zapatista peso (if full value) should therefore be 16.29 grams, composed of silver, 14.66 grams; gold, .300 grams; and the remainder, copper, 1.33 grams.

One may object that there is no reason to suppose that the Zapatista pesos, or any of the Revolutionary coinages, were intended to be of full value. Certainly they would not have been in this case, for of the 45 \$1 pieces tested above, only one weighs as much as 16 grams (group 31, test 2286), and that is of low silver fineness; the average of the lot is not even 13 grams. On the basis of the silver content of the peso fuerte, the Zapatista peso is considerably under value.

b) The subsidiary silver introduced in 1905 was struck to an alloy 800 thousands fine. The 50¢ piece weighed 12.5 grams total, containing 10 grams pure silver. The value of 60¢ is therefore represented by 12 grams pure silver. If 12 grams represented 90% of the weight of the Zapatista peso, the total weight of the coin would have been 13.33 grams, composed of 12 grams silver, .300 grams gold, and 1.033 grams copper.

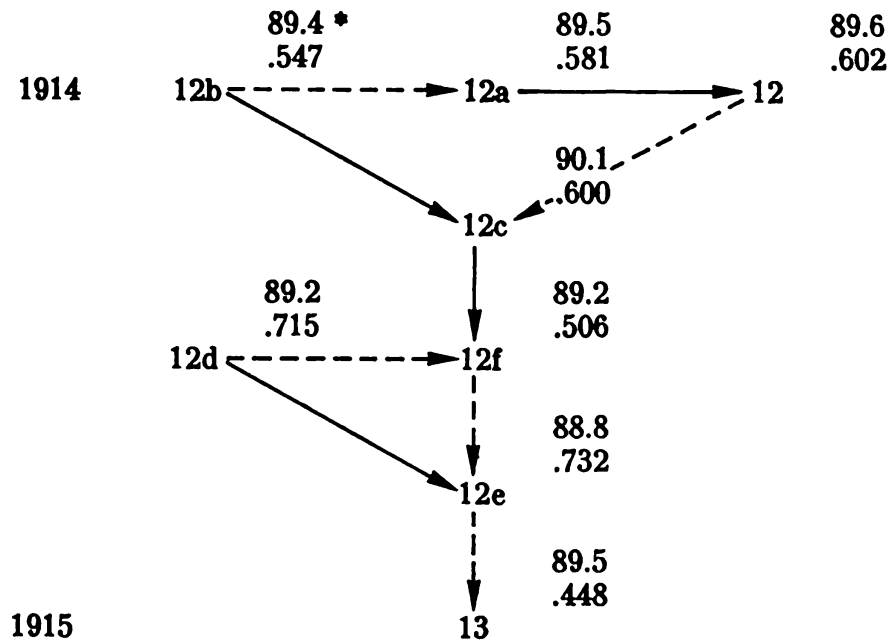
Calculation b) is much nearer the mark, for in this case the average weight of our peso specimens is only .64 grams under the standard—more than one would want to see at an established mint, but part of the loss is owing to our working with worn coins. We take it therefore as

virtually certain that the Zapatista peso was defined as a silver coin 900 thousandths fine, weighing 13.33 grams, composed of 12 grams silver, .300 grams gold, and 1.033 grams copper. The silver would have had an equivalent value of 60¢, the gold of 40¢, so that intrinsically the Zapatista peso was as sound as the peso in Federal subsidiary silver, a tribute to the capacity, and to the honesty, of the Zapatistas. Note too the nice exactitude of the theoretical weight. To check whether any Zapatista peso was up to weight, you had only to weigh it in a balance against just two pieces, a good Federal \$10 gold coin at 8.33 grams, and a 5 gram weight.

The theoretical basis of the \$2 piece is proportionately the same, save that the gold content is announced as .595 grams rather than the expected .600. There is no explanation for this oddity; possibly some official scruple dictated the change at the beginning of the series because of a slight failure in the alloy. The difference between .595 and .600 grams, on the analogy of the Mexican Federal gold coin, is tiny— $\frac{2}{3}$  of one centavo. The theoretical gold content of the \$2 piece is therefore equivalent to 79.33¢ of the gold peso. If we assume a theoretical weight of 26.67 grams for the coin, double that of the \$1, the 90% silver fineness produces a pure silver content of 24 grams, equivalent to \$1.20, with copper making up the remaining 2.072 grams. The total intrinsic value of a \$2 piece weighing 26.67 grams was \$1.99  $\frac{1}{3}$ . Again the average of the specimens tested falls rather below the suggested normal weight. At least some of the difference arises from weight lost by wear in circulation, but a larger difficulty seems to have been that control of weight was not careful, for the individual weights are fairly widely scattered and a few specimens are very heavy indeed.

## DIES

To discover the application of this theory in practice it is first necessary to determine the structure of the coinage by arranging the groups by mint and order of issue; only then can one ascertain to what extent the variations in alloy are random or part of a deliberate structure. The 2 pieces include a good die-linked series for eight of the 10 anonymous groups.



Most striking is the picture of the gold content which emerges from this arrangement. While the net amount of gold per piece varies rather considerably, the average is high with reference to the claimed .595 grams, and contrary to all expectation, tends to rise through the 1914 issues. Aside from group 12f, each group tests somewhat higher in gold content than the average of those which precede, with a fall occurring in 1915.

The two other anonymous \$2 groups of 1914, 12g and 12h, of lower average gold content, are not linked into this larger series, but there is evidence in the method of die manufacture for a late rather than an early date. The uniformity in style of all the anonymous, Campo Morado and Suriana \$2 dies leaves no doubt that they were cut by a single engraver. As he worked he renewed his punches from time to time. Thus the letter C in REPUBLICA MEXICANA, JUSTICIA and C<sup>o</sup> M<sup>o</sup> has three forms in the \$2 series of 1914-1915:

	<i>obv. die</i>	<i>rev. die</i>
1914 flat base C	No. 1: 12b/12c/12f	No. 1: 12b/12a
narrow oval	No. 2: 12a/12	No. 2: 12/12c
C		No. 3: 12d/12e/12f/13
thick top C	No. 3: 12d/12e	No. 4: 12g
	No. 4: 12g	No. 5: 12h
	No. 5: 12h	
1915 thick top C	No. 6: 13	No. 6: 13
	No. 7: 33	No. 7: 33 "Campo Morado"
	No. 8: 34/38	No. 8: 34 "Campo Morado"
		No. 9: 38 "Suriana"

These three forms follow closely the development of the \$2 die linkage outlined above, with the addition here of the non die-linked 1915 Campo Morado and Suriana issues. Although the order of die production is not necessarily the same as the order of die use in the coinage, the important point is that the dies of groups 12g and 12h are cut with the third form, the thick top C. They were therefore the last dies cut in 1914, and the coins struck from them were probably produced late in the year.

The \$1 issues unfortunately are not so easily handled, primarily because so little die linkage occurs. Letter forms are of some assistance in determining the order of die production; the letters C and O are particularly distinctive.

	<i>obv.</i>	<i>rev.</i>
1914 large closed C	9b/MO-11	9b round O
large open C	9a	9a
	9	9/9d
	31 "Campo Morado"	31 oval O
	9c/9d/45/46	9e
skew closed C	9e	9c
	10	10/32
	32 "Campo Morado"	11
1915 skew closed C	9f	9f <sup>12</sup> square oval O
	11	

<sup>12</sup> Perhaps some reworking in the die. The C was originally skew closed, but the O is round.

*new font:*

square closed C 47/47a	45	"Taxco" square O
	46	"Taxco"
	47	"Taxco"
	47a	"Taxco"

The position of the Campo Morado dies is evidence that dies were being cut for more than one mint at once. However the Taxco reverses, and obverse 47/47a were not cut at the same time as the other dies, nor by the same engraver. The obverse eagle has fuller, more rounded wings than on the earlier dies; the reverse rays are thicker. Curiously the wreath of the last three reverse dies is composed of two laurel branches, rather than the customary oak and laurel. A new font with selfconsciously-squared letters and rather fancy R's and S's was used for the circumferential legends. This font is not found on any other signed coins of Taxco, but was used for the dies of the last \$2 issue of Campo Morado (group 35, see below), as well as the 1915 Campo Morado 50¢ bronze (L-S 27-30e).

## MINTS

The problem of identifying the silver mints of Zapata has been complicated by the statement of Sánchez Garza, that "dies reading Atlixtec, Campo Morado and Taxco were indiscriminately used in all those places, hence it is utterly impossible to distinguish the issues of the State of Guerrero."<sup>18</sup> This seems inherently unlikely, and it is not clear whether his information derived from independent sources, or was merely an attempt to explain the die linkage which the coins themselves reveal. It is true that some bronze coins of the three mints in question were struck from a common obverse die (e.g. L-S 14a, 15, 26, 44), as were others struck from another obverse at Atlixtec, Taxco and "Guerrero" (L-S 4, 16-17a, 41-43). But dies can be transferred from one mint to another, and in any case Sanchez Garza can only have been speaking of the bronze coinage. There are no silver "dies reading Atlixtec," and the neutron activation analysis of the silver specimens shows significant

<sup>18</sup> *Historical Notes*, p. 22.

difference in metallic content to be associated with different die pairs. The \$1 and \$2 issues which bear a common mint name, or which are die-linked within the anonymous series, are each of individualistic alloy and cannot all have been produced at a common time and place.

In attributing the anonymous \$2 issues, we should note first that groups 12g and 12h are not die-linked with the rest of the anonymous \$2 series, from which they also differ noticeably in alloy. Their average weight is low, as are both the net silver and gold contents. In addition they are not die-linked to each other, and differ from each other in that 12h shows a high copper content and erratic individual weights. One must conclude that the dies of groups 12g and 12h were used under circumstances entirely different from those of the other Zapatista \$2 dies, and from each other. They must have been used at two mints other than that of the large die-linked anonymous series, an hypothesis which is supported by comparison of their alloy with that of the silver coins struck the following year, 1915, from mint-marked dies. Group 12g differs from the die-linked anonymous \$2 pieces in its rather high copper percentage, somewhat low net gold content, and low average weight. These are precisely the characteristics of group 33, probably the earlier of the two 1915 Campo Morado groups.

	<i>grams</i>	<i>% Ag</i>	<i>% Cu</i>	<i>% Ni</i>	<i>grams Ni</i>
1914 12g	23.41	89.2	9.2	1.77	.410
1915 33 "Campo Morado"	23.97	88.2	9.2	1.67	.398

We know no 1914 \$2 pieces from Campo Morado, even though the \$1 was struck there in 1914 and the \$2 in 1915 (groups 33 and 34). It must be that in addition the \$2 pieces of group 12g were struck at Campo Morado in 1914, although the dies did not bear the mint name.

Group 12h is very odd. The silver content ranges over a disappointing scale of 81.8–76.3%, with the lowest average of any of the groups; the copper content is very high indeed; the gold is relatively low. Planchet weight is very poorly controlled. These are characteristics as well of the rare Suriana 1915 \$2. We were able to analyse only two specimens of the Suriana issue which provided us with a bizarre weight range of 29.70 and 22.68 grams (the heavier being the more worn), the second lowest average silver content, an average copper content exceeded only by group 12h, and a low gold content.

	grams	% <i>A</i>	% <i>Cu</i>	% <i>N</i>	grams <i>A</i>
1914 12h	19.83	78.7	18.9	2.08	.409
1915 38 "Suriana"	26.19	82.8	14.4	1.25	.334

While the two groups are dissimilar in degree, they present the same general profile, so that it is a not unreasonable supposition that they issued from the same mint.

The anonymous \$2 pieces of 1914, therefore, should be attributed to not one but three different mints, probably the same as the three mints which struck the denomination in 1915. The first of these, and the most active in 1914, might for convenience be identified as Atlixac, considered by Sánchez Garza as the major Zapatista mint;<sup>14</sup> the other 1914 groups were struck at Campo Morado and (probably) Suriana. The \$2 issues therefore are to be distributed as follows:

	1914							1915
Atlixac	12b	12a	12	12c	12d	12f	12e	13
Campo Morado		12g						34, 33
Suriana		12h						38

The Atlixac issues are entirely die linked. Those of the other mints are not, but an obverse die is shared between Campo Morado group 34 and Suriana group 38. Mint names occur only on the groups italicized above, not on any of the 1914 issues, or at Atlixac in 1915.

As in the case of the \$2 issues, there are notable differences among the various \$1 groups with respect to metallic content. Group 9c, alone among the anonymous \$1 issues, is high in silver but low in both copper and gold. The only other examples of this alloy in the Zapatista silver are the 1915 mint-marked issues of Taxco (groups 45–47a). Since the obverse die of 9c was continued with Taxco groups 45 and 46, all must have been struck there. This is the first evidence that the Taxco mint was operating as early as 1914; only coins dated 1915 actually bear the city name.

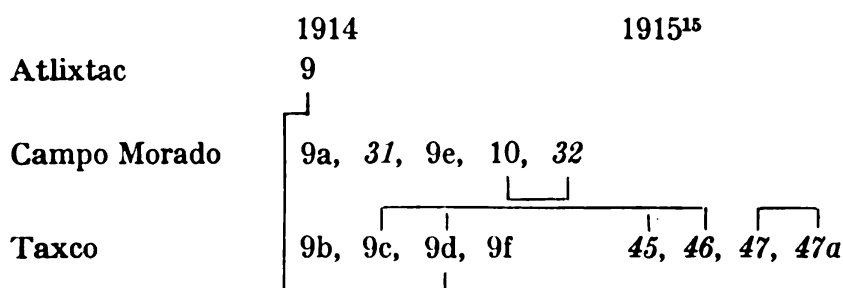
Groups 9b and 9f are more difficult. Their gold content is very low, comparable to the Taxco groups. But their silver is low as well, save

<sup>14</sup> *Historical Notes*, p. 22.

for one piece of group 9f, and their copper consequently high. One might wish to attribute both groups to Taxco, representing early endeavors of that mint before the silver content of the \$1 was stabilized at the official 90% level.

It is also likely that several of the anonymous \$1 issues of 1914 were struck at Campo Morado. Groups 9a, 9e and 10 average high in gold when compared with Taxco, but still well under the promised .300 grams and under all the other anonymous issues of non-Taxcan composition. The proportions of silver and of copper are far more erratic than those of the Taxco or anonymous issues, but similar to the examples of Campo Morado. These details, together with the fact that the obverse die of group 9e was used in 1915 to strike signed 50¢ copper at Campo Morado (L-S 27ax, b, c) make it fairly certain that these silver groups are to be attributed to that mint. Group 9 averages highest of any in both silver and gold content, well above the signed pesos of both Taxco and Campo Morado, and must therefore have been struck at a third mint, presumably at Atlixac, along with the die-linked anonymous \$2 groups.

A suggested distribution of the \$1 issues is as follows:



The issues designated by italics are the only ones which actually bear the mint name.

Three other Zapatista silver issues were produced in 1915. None bears any indication of gold or silver content.

(1) 50¢ pieces were struck at Taxco (L-S 43), of which one specimen was tested: 8.88 gm.; 92.8% *A* (8.24 gm.); 5.8 % Cu (.52 gm.); .57 % *A* (.051 gm.)—test 2169. The silver is exceptionally good. The quantity of gold—high for a coin which should contain none—shows that the gold of the Taxco \$1 coins was indeed residual.

<sup>15</sup> L-S 11 cannot be attributed until an analysis is available.



The piece was probably intended to be of full value. We do not know the standard weight; our example, at 8.88 grams, weighs less than any in Leslie-Stevens, who give a range of 8.95–10.85 grams. Even this light piece contains 8.24 grams pure silver, equivalent to 41.2¢ at .800 fine; and .051 grams gold, equivalent to 6.75¢, for a total of about 48¢. The heavier specimens would actually have been worth more in metal than their face value.

This analysis is important in suggesting that the Taxco \$1 issues were struck from metal intended for a 50¢ issue. The 50¢ piece was apparently of full value, but the pesos could not have been, given their module, because of the low proportion of gold.<sup>16</sup>

(2) A rare silver 50¢ piece (L-S 27ax) was struck at Campo Morado in a series of common 50¢ bronzes. No example was tested.

(3) A redesigned \$2 struck at Campo Morado (group 35, PLATE XXX) was the proper end of the Zapatista silver coinage in 1915. Its legends are cut from the same font of squared letters as that used to produce the reverse dies of the Taxco pesos. Its types imitate the old peso fuerte with Liberty cap, but the weight is lower even than the earlier Zapatista \$2. Perhaps more important, the coin bears no legend indicating the content of either gold or silver. The alloy approaches that of Taxco in the weakness of the gold; the silver is high enough, actually slightly higher than that of the earlier \$2 pieces of the same mint. But the coin has lost an appreciable amount of value, largely because of the 30% drop in weight from the standard, coupled with an almost 50% drop in net gold content. The average of the three analyses produces a pure silver content of 16.89 grams, and .218 grams pure gold equivalent to 84.6¢ and 28.1¢ respectively, for a total of \$1.127 intrinsic value in a \$2 coin. For whatever reason the original Zapatista formula of a silver coin equivalent in metal value to circulating value could no longer be sustained, but neither does the coin claim an unrealistic content.

The year 1915 saw otherwise the production of a mass of Zapatista bronze. No bronze at all had been struck at these mints during 1914, but in 1915, as silver coinage was dropped, the bronze was undertaken

<sup>16</sup> A change of plans may also be indicated in that of the two 50c strikes at Taxco in 1915 (L-S 43–44), the bronze is certainly later than the silver, for the reverse die common to both develops an edge break at 3–4 o'clock on the bronze.

with vigor, and some of the issues, from 2¢ to 50¢, remain the commonest of the Zapatista coins. The decision in 1915 to coin in the baser metal is best illustrated in the use of three \$1 obverse dies, the legend UN PESO being erased, to coin 50¢ bronze at the Campo Morado mint (L-S 27-28a). Even this coinage was suspended before the year was out. There remain only rare and sporadic issues. A peso of Guerrero type but struck in Morelos appeared in 1916, from the obverse die used for group 9b in 1914 (L-S MO-11).

### CONCLUSIONS

(1) Zapatista silver coinage was organized far more carefully than has hitherto been recognized. At least four mints were established to strike in 1914 and 1915: Atlixac, Campo Morado, Suriana and Taxco. Although the majority of the die pairs bear no mint name, it is possible, through the criteria of die linkage, variation in letter punch, and particularly metallic analysis, to discover unsuspected activity in the latter three mints in 1914.

(2) Zapatista die production was efficiently centralized. All the \$1 and \$2 dies of 1914 and 1915 (save those of groups 35, 47, 47a, and the obverses of groups 45 and 46) were cut by the same hand, without respect to the mint at which they were to be used. The earliest dies were anonymous, perhaps because no need was felt to distinguish among coins which had been centrally authorized, even if struck at different mints. Why the mint names were subsequently introduced is uncertain, but they may well reflect the fact which analysis has substantiated, that there were rather significant intrinsic differences in the products of the different mints.

(3) The weight of the \$1 was theoretically ca. 13.33 grams, that of the \$2, ca. 26.66 grams. The unusual alloy, in which silver was mixed not only with the customary copper but with a stated amount of gold, was devised to maintain the silver coins at a value equivalent to that of the minor Federal silver 50¢, 20¢ and 10¢. The Zapatista piece did represent a debasement of the coinage from the level of the peso fuerte, but not from the level of the fractional silver which had been struck at México since 1905. The gold content of the Zapatista pieces was crucial; without it they would have been worth intrinsically only about

60% of their face value at exchange with the Federal coins. But if value was their concern, why did the Zapatistas not choose the obvious alternative, to strike full value silver pesos? Perhaps silver was not as richly available as they would have liked. Or perhaps they judged that any peso irregularly issued would be suspect no matter how plausible its silver content, so that to render it as widely acceptable as possible they created a bimetallic peso in which 40% of its face value was pure gold.<sup>17</sup>

(4) The analyses show that a silver fineness of 900 thousands was aimed at, different from and incommensurate with those of the Republican coinage. There is more variation between individual examples than normal mint usage allows, which is hardly surprising under the circumstances. But the average is high and steady, aside from Suriana, proving a general concern to produce a silver coinage of honorable content.

(5) The gold content is another matter. The 1914 Atlixtec \$2 issues, claiming to contain .595 grams gold, are impressively generous, averaging .626 grams with an extreme individual example of .801 grams.<sup>18</sup> More-

<sup>17</sup> Compare the 1915 issues of Oaxaca with indication of gold. They fall into two groups, 1) reading AG 0.902, AU 0.010 on \$2 and \$5 (Wood 147-149), and 2) 0.175 ORO without mention of silver on \$5, \$10 and \$20 (Wood 143-146). The weight of all the coins with respect to denomination is so much less than that of the Republican and the Zapatista issues that there is no relation at all between intrinsic and circulating value. The heaviest \$2 piece known (Gaytán OAX 69 TER, p. 199), weighing 6.58 grams, produces 5.935 grams pure silver and .0658 grams pure gold, worth respectively 29.68¢ (in relation to the 800 thousands fine subsidiary silver of the Republic) and 8.77¢, for a total intrinsic value of only 38.45¢. The \$5 piece would have been valued proportionately.

The second series, of higher net gold content, is hardly any better because the weights of the denominations have been drastically reduced. The heaviest specimen of the \$5 piece known to Wood weighed 3.79 grams. A gold fineness of 175 thousands produces a pure gold content of .6633 grams gold, worth 88.5¢. (It is unlikely that the legend means "0.175 grams gold" since it occurs unaltered on all three denominations; if it does the fine gold value of each piece would have been only 23.3¢). No silver content is announced. Even assuming, what is highly unlikely, that all the remaining metal of the coin is silver, the \$5 piece of 3.79 grams would still contain only 3.1267 grams pure silver, valued at 15.6¢. The \$5 coin of this issue was therefore worth at a maximum just over \$1.04. The legends announcing gold and silver content on the coins of Oaxaca might have made them more attractive, but this is a far cry from the coins of Zapata which were at least in theory as sound intrinsically as the Federal.

<sup>18</sup> This \$2 piece, test 2121 of group 12e, contains 21.92 grams silver, equivalent

over the percentage of gold, and consequently the net gold content rises continuously through the 1914 issues, with the exception of group 12f, to an average of .732 grams in group 12e, or some 23% above the standard. There could hardly be better evidence of the seriousness with which the announcement of gold content was intended. The alloy of the Atlixac \$1 is not so promising, nor is the metal of the Campo Morado \$1 and \$2. The \$2 pieces struck at Suriana in 1915 contain an average of only .334 grams gold, or some 44% under the standard; while group 12h, attributed provisionally to Suriana in 1914, averages lower than any other group of the year at .409 grams.

But it is in the Taxco \$1 issues that we discover not a weakness in the gold content but a disregard for it. The maximum in eight specimens of group 45 is only .099 grams, with an average of .059. The examples of the other signed groups, 46–47a, fall below even this average. This can only have been deliberate policy, for the silver content of the peso was carefully calibrated at Taxco. It is likely that this tiny gold content was a residue left over in the regular processes of refining, and that the coiners did not intend that there be any gold in the coin, much less the .300 grams which the legend of the \$1 claimed.<sup>19</sup>

(6) Although cast issues are met with elsewhere in the Mexican revolutionary coinage, Zapatista silver is struck. A few cast examples of Zapatista \$2 and \$1 silver are known, of which four were subjected to our analysis. The \$2 piece was cast from an original struck specimen of group 12d, the three \$1 pieces from those of group 9.

The silver content of the \$2 is rather low—82.7% as against 89.2% for the struck group. It contains twice the copper percentage of the struck pieces and almost no gold at all—0.50 grams as against .715 grams for the struck group. It is impossible that this coin was cast from the same metal used to produce the struck pieces; it can only have been manufactured elsewhere and at a later date. There is no indication that the

to \$1.096 at .800 fine, and .801 grams gold, equivalent to \$1.068; for a total intrinsic value of \$2.164.

<sup>19</sup> By way of comparison, two cast Revolutionary silver pesos from Sinaloa, having no connection with the Zapatista coins and claiming no gold content, tested out at 0.614 and 0.622% gold, more than the average of any of the signed Taxco groups, and double the actual gold content in grams of the Taxco coins since the northern pesos are as large as the peso fuerte.

casting was official; on the contrary, the gold content is so low that even the Taxco coiners might have blushed.

Similarly, the silver fineness of the three \$1 pieces is not despicable, but their weight is somewhat low so that the gross silver content averages almost 20% below that of the struck specimens of group 9. The copper content is high in two of the three examples, and their average gold content only about 1/4 of that of the struck specimens. Most striking of all is the fact that the three cast coins differ so markedly from each other, particularly in the copper content. Although each was cast from an example of group 9, they are in effect three different issues. The only possible conclusion is that they are cast counterfeits deriving from separate sources.

(7) Our results vindicate those historians who have argued that Zapata's coinage was essentially honorable. The large variations between individual specimens demonstrate the difficulties involved in producing a standard coinage at make-shift mints: the weights vary too widely, the bimetallic fineness was not maintained at Suriana, nor the gold at Taxco. But the majority of the coins are struck near the theoretical standard, one which reveals a serious attempt to produce coin as good as the Federal fractional silver. What the Zapatistas bought, they paid for in good coin. The political and social importance of this attitude cannot be overestimated.

(8) Finally, a glance at context. No one seems to have correlated Zapata's silver coinage with the nature of the community within which it was to be used. Guerrero was the least likely area for such a coinage, since it was on the whole the most backward and depressed of all the Mexican states. For example, 1) In 1919 Guerrero ranked 27th among 31 states and territories in percentage of population living in communities of more than 2500 inhabitants.<sup>20</sup> Such a dispersed rural economy, for the majority a subsistence economy, has no need of coins of high denomination or indeed frequently of coins at all. 2) In 1910, at the outbreak of the Revolution, Guerrero had the highest rate of illiteracy of any Mexican state or territory—over 90%.<sup>21</sup> It ranked third from

<sup>20</sup> James W. Wilkie, *The Mexican Revolution: Federal Expenditure and Social Change since 1910* (Berkeley, 1967), p. 218.

<sup>21</sup> Wilkie, pp. 208, 212.

the bottom among the states and territories in the number of schools proportionate to population, and seventh from the bottom in proportion of the population attending school.<sup>22</sup> Literacy and extent of education is a general indication of the proportion of the population capable of carrying on business dealings of any complexity beyond single transaction sales and purchases. 3) Tax revenues were extremely low. In fiscal 1909/1910 Guerrero produced 32¢ per capita in Federal excise taxes, the least produced by any state. In state taxes the revenue of \$1.08 per capita was the smallest of any state save Oaxaca.<sup>23</sup> 4) Capital was very short. The one state-chartered bank, the Banco de Guerrero at Iguala, was capitalized in 1906 at \$500,000, the smallest of all but one of the 26 state-chartered banks. Even this money was conservatively put to use; half of it was not called until 1909/1910. Of the monies available to the bank in 1910 some 38% was let out on collateral loans, the third highest percentage of all the state-chartered banks; conversely, only 11% was owing from "Debtors and Debit Balances," the lowest percentage of any of the banks. That is to say, even the tiny capital available to the Banco de Guerrero was lodged with people of some property, those who were able to provide physical backing for their loans. The very high percentages obtaining elsewhere for "Debtors and Debit Balances"—up to 72% of assets at the Banco de Coahuila—of course represent overdrafts as well as signature loans, and so signify money available to some extent to the same propertied elements. But it was the policy of the Banco de Guerrero, and had been since its founding, to limit lending to those who had already attained some financial stability, so that those for whom capital accumulation was difficult found it equally difficult to borrow.<sup>24</sup>

These statistics argue a level of poverty in Guerrero such that wide use of a high denomination silver coinage was not practical. Yet the Zapatista \$1 and \$2 issues are by far the commonest of all Mexican Revolutionary silver; the \$2 piece is the largest denomination struck during the Revolution outside Oaxaca. Of course they circulated else-

<sup>22</sup> These figures are derived or calculated from *The Mexican Year Book*, 1911, p. 7, and 1922-24, tables to p. 355.

<sup>23</sup> Calculated from *Year Book*, 1911, pp. 7, 50-92.

<sup>24</sup> Statistics calculated from *Year Book*, 1911, pp. 132-144.

where, notably in Morelos, whose economy was considerably more advanced than that of Guerrero. But the campaigns of both Revolutionary and Federal troops in Morelos in the course of 1914 devastated the state, and economic conditions were hardly any better at the time than in neighboring Guerrero. In any case the coins were produced under the Zapatista state government in Guerrero, which had been installed after the fall of Chilpancingo to the revolutionaries in late March 1914. Whether they circulated there or more widely, their high value suggests that they were ultimately intended not for the populace in general but for the commercially adept in the few larger centers. Their legends virtually say as much: the indication of gold content may sooth the skeptical recipient, but the gold has ultimately no practical significance unless it can be recovered. While few would be competent to smelt the Zapata silver, it can be done with the appropriate equipment. But it is not worth doing except as these coins are taken in some quantity. Ultimately therefore the metallic value of the coins was recuperable not even by the few who were able to use them in commerce, but the fewer who were able to accumulate them by saving.

The types and legends of Zapata's silver coins may be interpreted variously as expressions of Revolutionary fervor, but the coins as objects of exchange could have been continuously useful only for a stable and sophisticated fraction of the population. In type these \$1 and \$2 pieces are already traditional. The Zapatista thematic aside, the coins read *República Mexicana* and bear the type of eagle on *nopal* which had distinguished the Federal coinage from the beginning of the Republic. The reverse type of the \$1, the Liberty cap on rays, is a Federal type of equal antiquity. In all this the historical continuity of the coins, both superficial and intrinsic, and the conventional honesty of the men responsible for them, were emphasized.<sup>25</sup> The coins thus provide striking

<sup>25</sup> Cf. what is said of General Salgado, the Zapatista Governor of Guerrero, "Obtuvo la aprobación para emitir billetes a condición que fueran canjeados cuanto antes por moneda de plata, para lo cual ya había formado su plan. El canje, *para honra del movimiento suriano* y de la administración guerrerense, fué hecho en su totalidad poco tempo después, redimiéndose en plata y oro la deuda que momentáneamente contrajo el Gobierno Provisional del Estado" (Magaña & Guerrero, *Emiliano Zapata*, p. 21, italics added). At least part of the exchange would have been accomplished with the Zapatista silver coinage.

confirmation of a recently published socialist thesis which argues that philosophically the Zapatistas were essentially bourgeois Liberals:

The Zapatistas were not anti-bourgeois . . . in the sense that they wished to destroy bourgeois property relationships—surely the only test of a genuine anti-bourgeois attitude. It was feudal, not bourgeois, social relationships which the men of the South sought to destroy. The *zapatista* proposals which mentioned the interests of the working class looked to the *improvement* of the worker's conditions *within* the framework of capitalist property relationships by such means as guaranteeing workers the right to organize and to strike, providing for shorter hours of labor, and so forth. In short . . . although the *zapatistas* sought to protect and promote the interests of small proprietors, they also envisioned that bourgeois property relationships would continue to prevail in industry, commerce and finance.<sup>26</sup>

Specimen	L-S no.	UM <sup>27</sup> Test no.	wt.	% <i>A</i>	wt. <i>A</i>	%CU	wt.CU	% <i>A'</i>	wt. <i>A'</i>
\$2 1914	12	2137	29.24	89.2	26.08	7.9	2.31	2.28	.667
		2296	28.14	91.3	25.69	6.3	1.77	2.60	.732
		2277	27.42	90.2	24.73	8.1	2.22	2.24	.614
		2295	27.38	89.0	24.37	8.8	2.41	2.25	.616
		2688	26.57	88.2	23.43	8.3	2.21	2.29	.608
		2135	24.36	89.6	21.83	7.4	1.80	2.19	.533
		2136	24.03	89.8	21.58	7.6	1.83	2.18	.524
		2139	22.93	89.5	20.52	8.8	2.02	2.40	.550
		2138	22.74	89.4	20.33	7.8	1.77	2.53	.575
<i>Avg.</i> <sup>28</sup>			25.87	89.6	23.17	7.9	2.04	2.33	.602

<sup>26</sup> Robert P. Millon, *Zapata: The Ideology of a Peasant Revolutionary* (New York, 1969), p. 100.

<sup>27</sup> These analyses were made possible through the generosity of a number of numismatists who lent their specimens for examination: Arthur Blaze Jr., Roy E. Daniels, Elwin C. Leslie, Pat Pace, Mrs. Erma Stevens, Verne R. Walrafen, and The American Numismatic Society.

<sup>28</sup> The average silver content of all \$2 issues save 12h is 89.0%



Specimen	L-S no.	UM <sup>37</sup> Test no.	wt.	% <i>R</i>	wt. <i>R</i>	% CU	wt. CU	% <i>A'</i>	wt. <i>A'</i>
	12a	2297	27.18	88.8	24.14	8.6	2.34	2.05	.557
		2298	25.03	90.9	22.76	6.2	1.55	2.21	.553
		2141	25.01	89.6	22.41	7.6	1.90	2.10	.525
		2280	24.58	88.2	21.68	10.3	2.53	2.41	.592
		2140	24.14	89.3	21.56	8.1	1.96	2.14	.517
		2142	24.10	90.4	21.79	7.0	1.69	3.08	.742
Avg.	12b		25.01	89.5	22.39	8.0	2.00	2.33	.581
		2143	27.28	90.5	24.69	7.0	1.91	2.18	.595
		2344	25.96	89.0	23.10	8.0	2.08	2.13	.553
		2145	25.38	87.0	22.08	9.4	2.39	2.12	.538
		2299	25.14	91.1	23.10	6.3	1.58	2.32	.583
		2300	24.94	90.0	22.45	7.9	1.97	2.15	.536
		2278	23.95	89.3	21.39	7.6	1.82	2.25	.539
Avg.	12c		25.20	89.4	22.57	7.8	1.97	2.17	.547
		2129	25.83	88.0	22.73	8.6	2.22	2.42	.625
		1717	25.65	91.6	23.50	6.0	1.54	2.45	.628
		2301	24.29	89.3	21.69	7.9	1.92	2.35	.571
		2130	21.44	91.5	19.62	6.1	1.31	2.69	.577
Avg.	12d		24.30	90.1	21.89	7.2	1.75	2.48	.600
		2125	25.95	88.6	22.99	8.6	2.23	2.98	.773
		2302	25.43	90.2	22.94	7.1	1.81	3.13	.796
		2303	24.86	87.6	21.78	9.1	2.26	3.13	.778
		2128	24.76	89.9	22.26	7.0	1.73	2.76	.683
		2127	24.67	89.2	22.01	6.9	1.70	3.11	.767
		2123	24.63	89.4	22.02	7.1	1.75	2.94	.724
Avg.	12e		24.78	89.2	22.10	7.5	1.86	2.88	.715
		2120	25.96	89.0	23.10	7.5	1.95	3.05	.792
		2146	24.88	88.8	22.09	7.5	1.87	3.02	.751
		2121	24.80	88.4	21.92	7.5	1.86	3.32	.801
		2147	24.79	91.8	22.76	6.1	1.51	2.14	.531
		2306	24.62	89.2	21.96	7.4	1.82	2.89	.712
		2307	24.49	86.0	21.06	11.5	2.82	3.18	.779

## SILVER COINAGE OF ZAPATA

291

Specimen	L-S no.	UM <sup>27</sup> Test no.	wt.	% <i>R</i>	wt. <i>R</i>	% CU	wt. CU	% <i>A</i>	wt. <i>A</i>
		2122	23.02	88.5	20.37	7.5	1.73	3.17	.730
		2308	23.01	87.9	20.23	8.0	1.84	3.35	.771
		2279	22.22	89.2	19.82	7.7	1.71	3.23	.718
<i>Avg.</i>			24.20	88.8	21.48	7.9	1.90	3.03	.732
	12f	2805	25.91	90.7	23.50	7.2	1.87	2.06	.534
		2149	24.87	88.4	21.99	9.6	2.39	2.07	.515
		2304	24.46	89.4	21.87	8.6	2.10	2.06	.504
		2305	24.35	88.4	21.53	9.0	2.19	1.93	.470
<i>Avg.</i>			29.90	89.2	22.22	8.6	2.14	2.03	.506
	12g	2343	26.50	91.2	24.17	7.9	2.09	.69	.183
		2310	26.14	89.4	23.37	8.1	2.12	2.17	.567
		2150	24.23	88.1	21.35	11.0	2.67	1.79	.434
		2309	23.26	87.7	20.40	11.2	2.61	1.67	.388
		2154	22.43	89.8	20.14	8.3	1.86	1.79	.401
		2152	22.41	89.5	20.06	9.3	2.08	1.83	.410
		2151	22.32	88.5	19.75	9.7	2.17	2.17	.484
		2283	22.07	88.3	19.49	10.3	2.27	1.86	.411
		2153	21.32	90.5	19.29	7.2	1.54	1.92	.409
<i>Avg.</i>			23.41	89.2	20.89	9.2	2.16	1.77	.410
	12h	2160	27.91	76.4	21.32	21.6	6.03	1.64	.458
		2157	25.26	79.1	19.98	17.7	4.47	2.41	.609
		2159	22.61	76.5	17.30	21.7	4.91	1.65	.373
		2282	22.02	77.6	17.09	20.1	4.43	1.74	.383
		1719	21.06	81.2	17.10	15.5	3.26	2.74	.577
		2158	18.59	78.5	14.59	19.9	3.70	1.70	.316
		2284	17.46	76.3	13.32	21.0	3.67	2.55	.445
		2285	17.41	78.4	13.65	18.5	3.22	2.52	.439
		2156	17.40	79.8	13.89	17.3	3.01	2.44	.425
		2155	17.04	80.0	13.63	18.4	3.14	1.82	.310
		2161	16.91	78.6	13.29	18.7	3.16	1.70	.287
		1718	14.25	81.8	11.66	16.3	2.32	2.00	.285
<i>Avg.</i>			19.83	78.7	15.57	18.9	3.78	2.08	.409
1915	13	2702	26.31	88.1	23.18	8.4	2.21	1.69	.445
		2133	25.86	90.1	23.30	6.4	1.66	1.79	.463
		2700	25.40	89.7	22.78	8.6	2.18	1.82	.462

Specimen	L-S no.	UM <sup>27</sup> Test no.	wt.	% <i>R</i>	wt. <i>R</i>	% CU	wt. CU	% <i>A</i>	wt. <i>A</i>
Campo Morado		2701	24.65	84.8	20.90	13.3	3.28	1.43	.352
		2134	24.43	91.0	22.23	7.1	1.73	1.93	.471
		2311	24.32	93.2	22.67	5.2	1.26	2.04	.496
	<i>Avg.</i>		25.16	89.5	22.51	8.2	2.05	1.78	.448
	33	2165	25.25	87.6	22.12	9.4	2.37	1.63	.412
		2166	24.80	84.8	21.03	13.1	3.25	1.82	.451
		2314	24.37	87.5	21.32	7.8	1.90	1.66	.405
		2698 <sup>29</sup>	24.33	90.1	21.92	7.3	1.78	1.65	.401
		2313	24.14	89.0	21.48	9.2	2.22	1.23	.297
		2164	23.70	91.2	21.61	8.5	2.01	1.15	.273
		2699	23.00	86.4	19.87	9.9	2.28	2.24	.515
		2346	22.13	89.3	19.76	8.4	1.86	1.95	.432
Campo Morado	<i>Avg.</i>		23.97	88.2	21.14	9.2	2.21	1.67	.398
	34	2697	29.44	84.5	24.88	11.5	3.39	1.77	.521
		2927	28.72	87.2	25.04	11.3	3.24	1.52	.437
Suriana	<i>Avg.</i>		29.08	85.9	24.96	11.4	3.32	1.65	.479
	38	2696	29.70	80.7	23.97	15.7	4.66	1.43	.425
		2695	22.68	84.9	19.26	13.1	2.97	1.07	.243
Campo Morado	<i>Avg.</i>		26.19	82.8	21.62	14.4	3.82	1.25	.334
	35	2694	20.09	89.0	17.88	8.1	1.63	1.80	.362
		2167	19.16	91.6	17.55	6.2	1.19	.98	.188
		2168	16.60	91.8	15.24	7.5	1.25	.62	.103
	<i>Avg.</i>		18.62	90.8	16.89	7.3	1.36	1.13	.218
	12d cast	2281	27.40	82.7	22.66	15.5	4.25	.18	.050
\$ 1 1914	9	2686	13.78	92.7	12.77	4.7	.65	2.31	.318
		2288	13.17	89.1	11.73	8.4	1.11	2.72	.358

<sup>29</sup> This example, in the collection of the ANS, bears an inscription engraved by hand upon the reverse, GRAL. / E. ZAPATA (PLATE XXXI) his personal pocket piece?

## SILVER COINAGE OF ZAPATA

293

Specimen	L-S no.	UM <sup>27</sup> Test no.	wt.	% <i>R</i>	wt. <i>R</i>	%CU	wt.CU	% <i>A</i>	wt. <i>A</i>
		2291	12.81	91.1	11.67	7.4	.95	1.92	.246
		2131	12.78	94.5	12.08	3.1	.40	2.67	.341
<i>Avg.</i> <sup>30</sup>			13.14	91.9	12.06	5.9	.78	2.41	.316
	9a	2292	13.78	89.3	12.31	8.3	1.14	2.16	.298
		2920	13.23	87.3	11.55	10.9	1.44	1.83	.242
		2921	12.59	89.3	11.24	8.9	1.12	1.82	.229
<i>Avg.</i>			13.20	88.6	11.70	9.4	1.23	1.94	.256
	9b	1714	12.68	58.3	7.39	35.4	4.49	.64	.081
	9c	2982	14.58	89.8	13.09	9.5	1.39	.65	.095
		2983	14.17	89.9	12.74	9.6	1.36	.54	.076
		2984	13.46	88.3	11.89	11.2	1.51	.54	.073
		2922	13.06	91.6	11.96	7.9	1.03	.48	.063
		1716	12.23	94.3	11.53	5.6	.68	.70	.086
<i>Avg.</i>			13.50	90.8	12.24	8.8	1.19	.58	.079
	9e	2692	13.95	91.3	12.74	7.1	.99	1.88	.262
		2345	13.02	90.6	11.80	8.6	1.12	1.61	.210
		2689	12.62	79.2	10.00	19.5	2.46	2.70	.341
		2693	12.57	82.5	10.37	15.3	1.92	1.77	.222
		2132	12.17	87.2	10.61	9.7	1.18	1.91	.232
		2293	11.15	85.4	9.52	12.7	1.42	1.79	.200
<i>Avg.</i>			12.58	86.0	10.84	12.2	1.52	1.94	.245
	9f	1715	12.62	91.9	11.60	5.7	.72	1.01	.127
		2923	11.94	84.7	10.11	15.1	1.80	.29	.035
		2289	11.24	64.8	7.28	32.8	3.69	.54	.061
		2342	10.45	71.0	7.42	27.8	2.91	.68	.071
<i>Avg.</i>			11.56	78.1	9.10	20.4	2.28	.63	.074

<sup>30</sup> The average silver content of all \$1 pieces, save for groups 9b and 9f which are not consistent with the rest, is 88.8%.

Specimen	L-S no.	UM <sup>37</sup> Test no.	wt.	% <i>R</i>	wt. <i>R</i>	% CU	wt. CU	% <i>A</i>	wt. <i>A</i>
Campo Morado	10	2290	14.49	89.7	13.00	7.8	1.13	1.88	.272
		2294	12.94	90.9	11.76	7.5	.97	1.83	.237
		2924	12.67	91.3	11.57	7.2	.91	1.53	.194
	<i>Avg.</i>		13.37	90.6	12.11	7.5	1.00	1.75	.234
	31	2286	16.51	75.9	12.53	20.9	3.45	1.78	.294
		2925	15.57	81.2	12.64	17.3	2.69	1.42	.221
	<i>Avg.</i>		16.04	78.6	12.59	19.1	3.07	1.60	.258
	32	2287	14.38	87.4	12.57	11.1	1.60	1.75	.252
		2340	14.23	88.8	12.64	8.2	1.17	1.87	.266
		2163	13.29	91.3	12.13	6.6	.88	1.62	.215
		2312	12.40	90.0	11.16	8.6	1.07	1.68	.208
		2162	10.43	91.3	9.52	7.3	.76	1.66	.173
	<i>Avg.</i>		12.95	89.8	11.60	8.4	1.10	1.72	.223
1915 Taxco	45	2347	15.22	89.7	13.65	8.4	1.28	.59	.090
		1713	12.63	90.2	11.39	9.5	1.20	.38	.048
		2171	12.53	90.3	11.31	8.6	1.08	.45	.056
		2690	12.45	89.2	11.11	10.8	1.34	.38	.047
		2172	12.30	88.2	10.85	10.7	1.32	.43	.053
		2687	12.16	90.7	11.03	9.5	1.16	.40	.049
		2170	11.67	89.3	10.42	10.6	1.24	.85	.099
		2348	11.50	91.1	10.48	8.9	1.02	.27	.031
	<i>Avg.</i>		12.56	89.8	11.28	9.6	1.21	.47	.059
	46	2929	11.65	88.0	10.25	11.6	1.35	.32	.037
Taxco	47	2931	12.20	90.7	11.07	9.1	1.11	.28	.034
Taxco	47a	2930	11.48	86.4	9.92	13.3	1.53	.33	.038
9 cast		2691	11.74	87.0	10.21	12.6	1.48	.22	.026
		1811	11.60	72.3	8.39	25.9	3.00	1.01	.117
		2341	11.03	92.0	10.15	6.9	.76	.63	.069





# PLATES



I



GIRESUN HOARD



7



8



9



10



11



12



## GIRESUN HOARD

### III



13



14



15



16



17



18



### GIRESUN HOARD

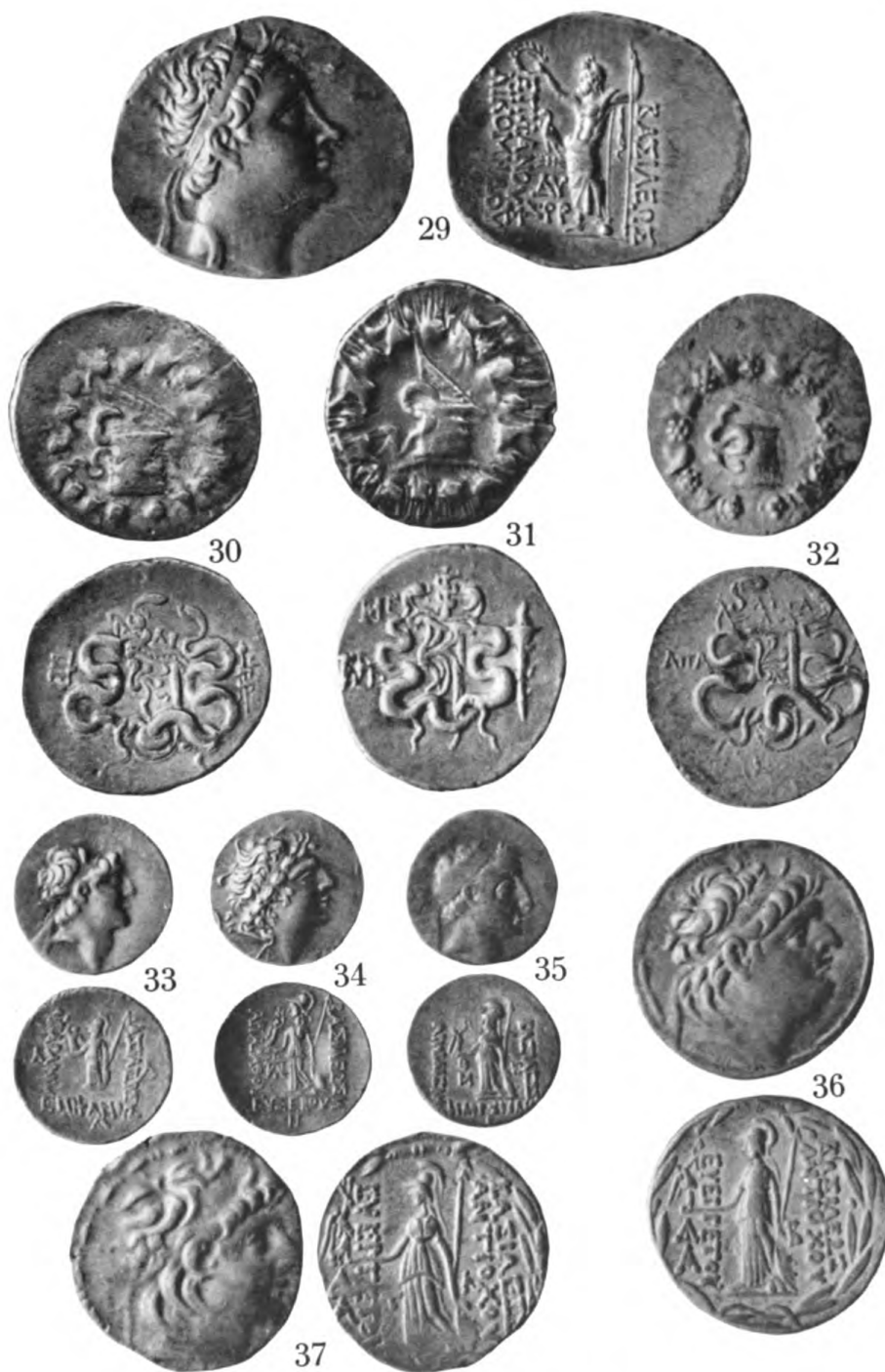


## GIRESUN HOARD

V



GIRESUN HOARD



GIRESUN HOARD

# VII



38



39



40



41



42



43



## GIRESUN HOARD





GIRESUN HOARD



# IX



50



51



52



53



54



55



## GIRESUN HOARD



1



2



3



4



5



# TEMPLES ON GREEK IMPERIAL COINAGE

# XI



TEMPLES ON GREEK IMPERIAL COINAGE



TEMPLES ON GREEK IMPERIAL COINAGE

# XIII



1



2



3



4



5



6



## TEMPLES ON GREEK IMPERIAL COINAGE



TEMPLES ON GREEK IMPERIAL COINAGE

XV



M. AGRIPPA ASSES



M. AGRIPPA ASSES



XVII



M. AGRIPPA ASSES

XVIII



M. AGRIPPA ASSES

XIX



1



2

CONSTANTINE VII GOLD COINAGE



CONSTANTINE VII GOLD COINAGE

# XXI



A.1.1



A.1.2



A.2



A.3



A.5.1



A.5.2



A.5.3



A.5.4



A.5.5



B.1



B.2



B.3



B.4



B.5



B.6



B.8



B.7



B.9



B.10



B.11



B.12



B.13



B.14



B.15



B.16

## SASANIAN BULLAE AND SEAL STONES



B.17



B.18



B.19



B'.1



C.1



C.2



C.3



C.4



C.5



C.6



C'.1



C'.2



C'.3



C'.4



C'.5



D.1



D.2



D.3



D.4



D.5



D.6



D.7



D.8



D.9



D.10



D.11

## SASANIAN BULLAE AND SEAL STONES

# XXIII



SASANIAN KUŠĀNŠĀHS



SASANIAN KUŠĀNŠĀHS



XXV



1



3



4



5



6



7



10



11



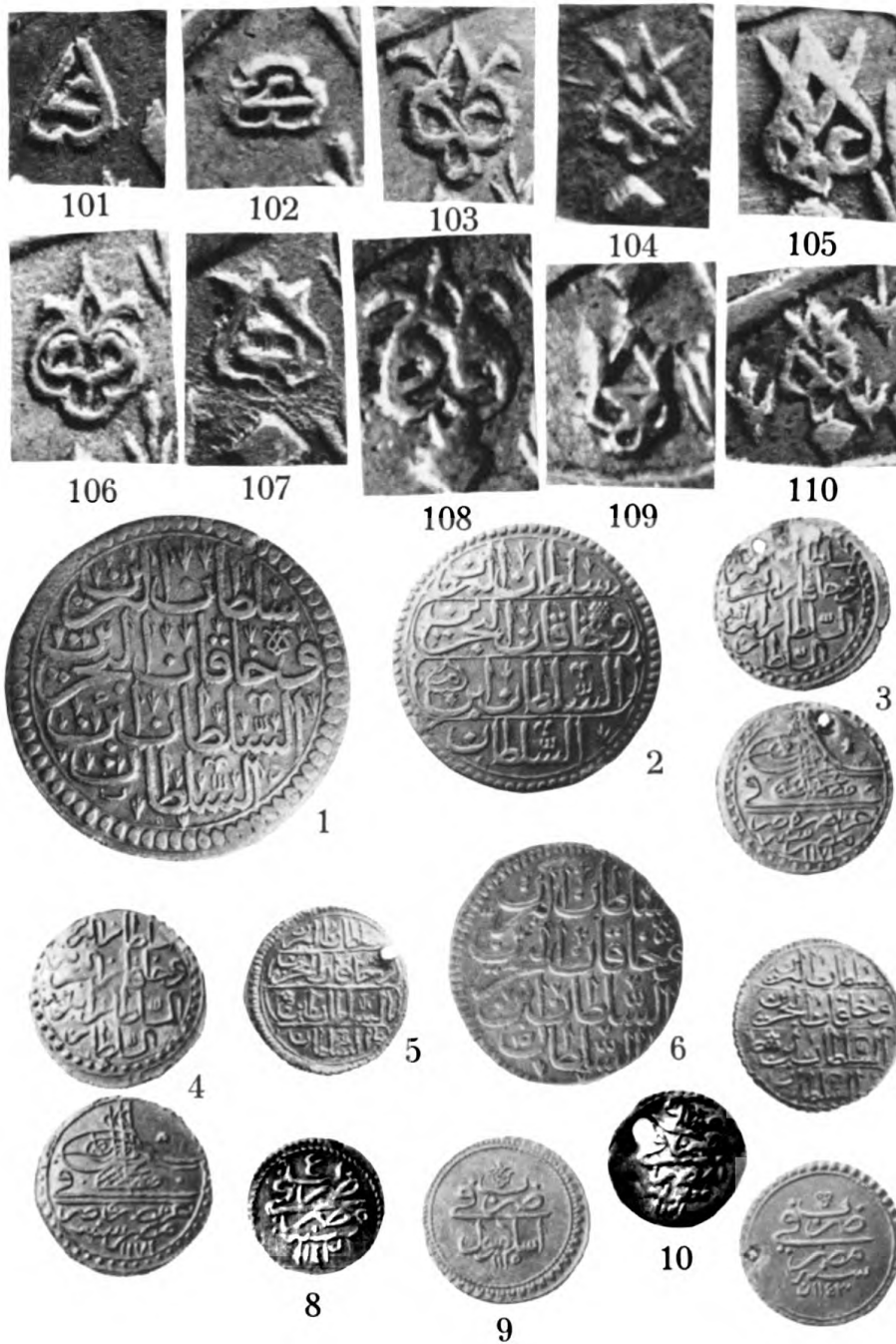
12



13



UMAYYAD FULŪS OF MOSUL



## OTTOMAN COINS

# XXVII



12



13



14



15



16



17



18



19



20



21



22



23



## OTTOMAN COINS



OTTOMAN COINS

# XXIX



(Illustrations courtesy of the Smithsonian Institution, Washington D.C.)

TEMPLETON REID

XXX



L-S 12



L-S 34



L-S 38



L-S 35



### SILVER COINAGE OF ZAPATA

XXXI



L-S 9



L-S 32



L-S 31



L-S 33



SILVER COINAGE OF ZAPATA







23

87











